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ABSTRACT

These hearings examined testimony on the practice of academic earmarking by the U.S. Congress, the process of allocating federal funds to academic projects or institutions based upon the influence of one or more members of Congress who favor the funding, rather than on the specific merits of the project or institution. Oral and written testimony for and against earmarking was heard from: (1) Robert M. Rosenzweig, former president of the Association of American Universities; (2) Ken Schlossberg, a consultant; (3) Joe B. Wyatt, chancellor of Vanderbilt University; (4) Charles McCallum, president of the University of Alabama-Birmingham; (5) David Gute, interim director of the Center for Environmental Management, Tufts University; (6) William A. Polf, deputy vice president for health sciences, Columbia University; (7) Alvin Pesachowitz, acting deputy assistant administrator for finance and acquisition, Environmental Protection Agency; (8) Elizabeth E. Smedley, acting chief financial officer, Department of Energy; and (9) Robert W. Brown, deputy associate administrator, Office of Human Resources Education, National Air and Space Administration. An appendix contains additional prepared statements and correspondence relevant to the hearings. (MDM)

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ACADEMIC EARMARKS—PARTS I & II

ED 370 481

HEARINGS

BEFORE THE

COMMITTEE ON
SCIENCE, SPACE, AND TECHNOLOGY
U.S. HOUSE OF REPRESENTATIVES

ONE HUNDRED THIRD CONGRESS

FIRST SESSION

JUNE 16; SEPTEMBER 15, 1993

[No. 100]

Printed for the use of the
Committee on Science, Space, and Technology

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ACADEMIC EARMARKS—PART I

WEDNESDAY, JUNE 16, 1993

House of Representatives,
Committee on Science, Space, and Technology,
Washington, D.C.

The Committee met, pursuant to call, at 10:04 a.m., in Room 2318, Rayburn House Office Building, Hon. George E. Brown, Jr. [Chairman of the Committee] presiding.

The Chairman. The Committee will come to order.

Today we begin the first in a series of hearings on Academic Earmarking, or what is sometimes called science pork barreling, and I am going to defer to Mr. Walker for an opening statement since he is one of those who still believes in making votes on quorum calls or voting on the Journal, and I am not going to do that, so I can make my statement after him.

Mr. Walker. Thank you, Mr. Chairman. I even call them once in a while.

The Chairman. Yes.

Mr. Walker. But thank you very much. I do appreciate your yielding to me.

Mr. Chairman, I first of all want to take this opportunity to thank you publicly for the work you have done over the past year to highlight the growing practice of academic earmarking. This is an issue on which we agree. This practice is detrimental to the integrity of the federal science funding process.

Earmarking in all areas, not just research, has been a concern of mine over some period of time. The backdoor method used by the appropriators to fund pet projects in their districts undermines the legislative and peer review processes and contributes to the American public's disdain for the way Congress conducts its business.

I believe we have made progress in recent years in convincing some of our colleagues on other authorizing committees that earmarked appropriations undermine their role. I hope that this crusade against earmarks will be even more successful in this year and some of the years ahead.

I have reviewed some of the written testimony to be presented this morning, and I must say that I am a little amazed at some of the justifications given for earmarking of appropriations to certain facilities. It is said that the projects funded aren't boondoggles, that they are vital to the nation's future, that they aren't taking away from scientific research because they are add-on spending. Well, even a car that is a lemon can be made to look good in a showroom, but that doesn't mean that there is a useful and great engine under the hood.

The bottom line is that most earmarked projects are funded that way because they wouldn't be able to withstand the close scrutiny of peer review or even of authorization, and so therefore they do not represent the best that this nation knows how to do, and we ought not be funding anything which is not our best effort with the limited resources that we have.

Again, Mr. Chairman, thank you for scheduling this series of hearings. I look forward to working with you to develop solutions to the problem of academic pork.

The CHAIRMAN. Thank you, Mr. Walker, and we hope you will be able to contribute further during the course of the hearing.

Mr. WALKER. If I get back, yes. Thank you.

The CHAIRMAN. Let me continue with my opening statement at this point.

A recent Newsweek article tells a classic pork barrel story. During World War II, Franklin Roosevelt summoned the congressional leadership for a top secret meeting on the need for an atomic bomb. All the Members voted to put aside petty concerns. Then Tennessee Senator Kenneth McKellar, chairman of the Senate Appropriations Committee, spoke up: "Mr. President," he said, "I agree that the future of our civilization may depend on the success of this project. Now, where in Tennessee are we going to build it?" So Oak Ridge Laboratory was created. Fifty years later, Oak Ridge remains open, one of the crown jewels of our complex of National Laboratories.

There are two basic problems with academic earmarking as it is practiced today. First of all, the amount and number of earmarks to colleges and universities have spiraled out of control. In 1992, 209 colleges and universities were specifically named in one of the 13 appropriation bills as recipients of research or facilities funding. The cost of these projects in 1992 was over $700 million, a 70-fold increase since 1980.

Just this week, the Chronicle of Higher Education published its annual review of earmarks which shows an additional increase of 12 percent in 1993, yielding a total of nearly $800 million in academic earmarks. In short, despite the efforts of this Committee and others, there is no evidence that the practice is abating.

Our purpose in holding this series of hearings is to shine a light on the scientific and political problems associated with earmarks. We recognize that there are legitimate problems and pressures which underlie the recent proliferation of earmarks, but with a new administration in place and with over 100 new Members of the House, we want to seek and to develop more equitable solutions to these underlying pressures. The solutions may involve enhancement of existing programs, such as NSF's Facilities Program or the EPSCoR Program—the Experimental Program to Stimulate Competitive Research—or they may involve totally new ideas, either legislative or programmatic.

Today's hearing is intended to focus on the pressures which have resulted in the proliferation of academic earmarks. We will soon hold another hearing to hear from universities about earmarks that they have recently received and from federal agencies about the impact of earmarks on their scientific priorities. Ultimately, we hope to use the hearing process both to step up the pressure to fight ear-

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marks in the upcoming appropriations cycle and to look for fair solutions to the problem.

I abbreviated my statement somewhat, and I will ask unanimous consent to include the full statement in the record, and, hearing no objections, that will be the order.

[The prepared statement of Mr. Brown follows:]

OPENING STATEMENT ON ACADEMIC EARMARKS

Chairman George E. Brown, Jr.

June 16, 1993

Today, we begin the first in a series of hearings on academic earmarking -- or for the less squeamish -- the "science pork-barrel".

Pork-barreling is of course an age-old political practice, and one which may not be all that objectionable if practiced in moderation, or for the right reasons. For example, President Lyndon Johnson used a mixture of threats and pork in order to secure the votes he needed to pass the 1964 Civil Rights Bill. Today, throughout America, there are many worthwhile dams, roads and hospitals which owe their very existence to a single YEA vote on the Civil Rights Bill. This is pork for the greater good.

A recent NEWSWEEK article tells a classic pork-barrel story. During World War II, Franklin Roosevelt summoned the Congressional leadership for a top-secret meeting on the need for an atomic bomb. All the Members voted to put aside petty concerns. Then Tennessee Sen. Kenneth McKeliar, Chairman of the Appropriations Committee, spoke up: "Mr. President, I agree that the future of our civilization may depend on the success of this project. Where in Tennessee are we going to build it?" So Oak

Ridge Laboratory was created. Fifty years later, Oak Ridge remains open, one of the crown jewels of our complex of national laboratories.

Sometimes these stories are amusing, or have happy endings. Unfortunately, at other times, the pork turns rotten. It is my opinion that academic earmarking has proliferated to the extent that the pork has turned rotten.

There are two basic problems with academic earmarking as it is practiced today. First of all, the amount and number of earmarks to colleges and universities have spiralled out of control. In 1992, 209 colleges and universities were specifically named in one of the

13 appropriations bills as recipients of research or facilities funding. Alphabetically the recipients ran from Alcorn State ($176,000 to study small farm conservation practices) to Xavier University (a share of $4 million from EPA to study chemical toxicity).

The cost of these projects in 1992 was over $700 million -- a 70-fold increase since 1980. Just this week, the Chronicle of Higher Education published its annual review of earmarks, which shows an additional increase of 12 percent in 1993, yielding a total of nearly $800 million in academic earmarks. In short, despite the efforts of this Committee and others, there is no evidence that the practice is abating.

Secondly, in my view, academic earmarking as it is practiced today violates basic tenets of fairness, in both the scientific and political arenas.

Scientifically, earmarking has reached the point where it is distorting scientific and agency priorities and causing serious inefficiencies in the use of scarce research dollars. It has reached the point where no new Federal R&D program -- for example, the President's defense conversion program -- is safe from attack by dubious, unreviewed proposals.

The political problem with earmarks is that they are typically inserted in an appropriations bill or report with minimal discussion or public record, thereby bypassing not only merit-review, but also the hearings and authorization processes as well as full and open Congressional debate. Earmarks are of course, allocated not on the basis of need (as many would suggest), but in fact in direct proportion to the influence of a few senior and influential Members of Congress. Further as we learned last year, they tend to be protected from attack by the rules of the House and the Senate. We have tried to change these rules, but have only been marginally effective in doing so.

Our purpose in holding this series of hearings is to shine a light on the scientific and political problems associated with earmarks. We recognize that there are legitimate problems and pressures which underlie the recent proliferation of earmarks. But with a new Administration in place and with over a hundred new Members of the House, we want to seek and to develop more equitable solutions to these underlying pressures. The solutions may involve enhancement of existing programs, such as NSF's facilities program or the EPSCoR (the Experimental Program to Stimulate Competitive Research) program. Or they may involve totally new ideas, either legislative or programmatic.

Today's hearing is intended to focus on the pressures which have resulted in the proliferation of academic earmarks. We will soon hold another hearing to hear from universities about earmarks that they have recently received and from Federal agencies about the impact of earmarks on their scientific priorities. Ultimately, we hope to use the hearings process both to step up the pressure to fight earmarks in the upcoming appropriations cycle and to look for fairer solutions to the problems.

INTRODUCTION OF SENATOR JEFFORDS

- Jim Jeffords was a seven-term Member of the House (1975-1989).

- Senator from Vermont since 1989

- He has been active (but not overly successful) in fighting earmarks in the Senate, particularly in the appropriations for EPA

- This is an opportunity to compare our experiences in the two Houses on the difficulty of fighting earmarks.

  (Parenthetically, we also invited Sen. Nunn, Sen. Bingaman, and Sen. Danforth, who have all been active in this area and were interested in testifying. However, they all had schedule conflicts.)

INTRODUCTION OF THE PANEL

- This is a panel of two anti-porkers (Dr. Wyatt and Dr. Rosensweig) and one pro-porker (Mr. Schlossberg).

- We tried to balance the panel (2:2), but it was very difficult to locate lobbyists or spokesmen on behalf of pork, despite the large number of practitioners (the list of lobbyists for universities and colleges takes up pages in the lobbying registration directory).

- For example, we invited Gerald Cassidy of Cassidy and Associates to appear as a witness today. We invited Mr. Cassidy because his firm, according to the Washington Post, has helped place language in appropriation bills that earmarked more than $400 million to at least 38 clients.

- Mr. Cassidy, however, declined the invitation.

- We are pleased that Mr. Cassidy's original partner -- Mr. Schlossberg -- is with us today. His testimony -- and the testimony of the other two witnesses -- is excellent.

The CHAIRMAN. We had originally scheduled testimony from Senator Jeffords, who has been an active exponent of not earmarking in the Senate, but he is involved in a Floor matter this morning in the Senate and will be unable to join us. However, we expect to have a statement from him which we will insert in the record at the appropriate time.

At this time, I would like to call up the panel of witnesses that we have scheduled for this morning to discuss the pros and cons of earmarking, and that includes Dr. Robert Rosenzweig, Former President of the Association of American Universities; Mr. Ken Schlossberg, President of Ken Schlossberg Consultants; and Mr. Joe Wyatt, Chancellor of Vanderbilt. All of these three panelists are extremely well informed about this issue, they have different points of view, and we expect them to make a contribution to our improved understanding of the dynamics of this process.

May I also say that I have a very bad voice this morning, as I am sure you can tell, and I am not going to strain it too much by talking any more than I have to. We expect other Members of the Committee to join us as quickly as this vote on the Journal is concluded.

For those of you who don't follow my erratic career, I announced some time ago I would no longer vote on the Journal because it is a total waste of time, and I'm saving the taxpayers oodles of money by not wasting my time that way. However, all Members don't share my views, so some of them will be a little late getting here.

May we begin with Dr. Rosenzweig.

STATEMENTS OF DR. ROBERT M. ROSENZWEIG, FORMER PRESIDENT, ASSOCIATION OF AMERICAN UNIVERSITIES, PALO ALTO, CALIFORNIA; KEN SCHLOSSBERG, PRESIDENT, KEN SCHLOSSBERG CONSULTANTS, WASHINGTON, D.C.; AND JOE B. WYATT, CHANCELLOR, VANDERBILT UNIVERSITY, NASHVILLE, TENNESSEE

Dr. ROSENZWEIG. Thank you, Mr. Chairman. I was going to say "Mr. Chairman and Members of the Committee," but perhaps "Mr. Chairman" would be sufficient under the circumstances.

I appreciate your invitation to discuss with you again this issue—I would call it a problem rather than an issue—of the earmarking of scientific work. I say "again" because I had this opportunity once before in 1985, and while much has happened since then, nothing that has happened suggests that my views on the subject had any influence on the course of events.

The CHAIRMAN. Well, don't feel bad. Mine haven't either.

Dr. ROSENZWEIG. Well, good. I'm in good company, and I know that you share my view that they have gone—events have gone steadily from bad to worse.

I want to commend you, though, and the Committee for addressing this problem and for doing it in a way that may shed light on it as well as throw heat.

As I understand the purpose of this part of your inquiry, it is to focus on the causes of the growth of scientific earmarking. I have some thoughts on that subject, but before offering them it is only fair to state my view of the practice itself. Analysis is rarely wholly dispassionate or without interest, so it is important that those of us who enter the debate be clear and open about what their positions and their interests—that is, what they stand to gain and what they stand to lose if their policy preferences prevail.

My own view, which I have expressed publicly many times over the last decade, is that science funding through primarily political processes and without regard to careful judgment of the scientific merits of the work to be done is a pernicious practice, destructive of high quality science, wasteful of the public's money, and erosive of public confidence in the integrity of universities and of the political process.

Those who see the matter differently are prone to argue that they would really prefer not to seek earmarks but they are forced to do so because there are no regularly authorized and peer-reviewed facilities programs to which needful institutions can apply. That strikes me as roughly akin to arguing that because the bank won't lend you money for the purpose for which you want it, you are morally justified in robbing the bank.

Moreover, where it was once argued that earmarking was, after all, only being done for facilities projects, it is now the case that much earmarking is being done for scientific projects themselves—that is, for the actual conduct of science rather than simply for the building in which the science will take place, for which there are many regularly authorized and peer reviewed programs.

A second line of argument holds that the whole allocation system is rigged by an elite group of institutions to which outsiders can't gain admission. Therefore, the argument goes, even if there were regular programs to which one might apply, it would be fruitless to do so. In that view, seeking earmarks is not merely justifiable on pragmatic grounds but strikes a populist blow against monopolists who control the market by excluding competitors.

Well, I have described these two justifications for earmarking in language that is perhaps more colorful than their advocates would use but not, I think, inaccurate. The first of the justifications falls of its own weight, as I have suggested; the second needs to be addressed because it provides a good deal of the political fuel that propels earmarking. It is an argument that I especially need to bring before you because for 10 years ending this past March I was the principal representative in Washington of the alleged monopolists. And I should say, Mr. Chairman, that this morning I am testifying only for myself, neither for my former employers nor for any institution or for anybody else but my own self.

But I do want to say that my defense against the oft repeated allegation that my position on this issue and that of my former employer, AAU, was nothing more than another market controlling strategy is that the whole notion of a system that is controlled by a few institutions that act to exclude others is false—verifiably, demonstrably, empirically false. The record is so clear that it is almost insulting to have to cite it to an informed audience.

At the end of World War II, to date roughly the time at which significant federal support of university-based research began, there may have been 20, perhaps a few more, serious research universities in the country. Most of those are still among the leading universities in the land—in fact, I dare say all of them are—and one would be hard put to it to argue that the nation would have been better off if early policies had directed research funding elsewhere.

But the contrast between then and now wholly demolishes the notion of some conspiracy of the rich and powerful. To list just some of the universities that were not then among the elite but now are among the world leaders in research makes the point well enough: Stanford, UCLA, UC-San Diego, University of Arizona, University of Florida, Washington University-St. Louis, Vanderbilt University, University of Georgia, University of Massachusetts, on and on. I stop at the risk of insulting some good friends, but the list is long enough. Where once there was a score of leading universities, there are now easily more than 100 seriously engaged in research and graduate education at a high level and on a large scale, all with major support from the Federal Government.

Our methods of supporting research over these years have surely not been flawless, but it is simply preposterous to argue that among the flaws has been a drive to monopolize. I suppose I should say that there is an alternative explanation, and that is that the conspiracy was a conspiracy among incompetent monopolists, but if that were true the argument falls in any case.

The causes of the growth of earmarking are, in fact, more serious and more interesting than the justifications of those who seek earmarks. If the practice is to be controlled or directed toward some useful national purpose, it is important to understand what has been animating those who engage in it in the universities and in the Congress. Let me take a crack at explaining what has been happening.

There has always been a certain amount of earmarking in science and education funding, but until 1983 it was generally seen as a marginal practice not engaged in by major institutions. That changed in 1983 when Columbia University and Catholic University, both members of AAU, sought and won earmarks for science facilities. Their stature conferred a kind of legitimacy on the act or at least the cover respectability, and their very public success undoubtedly helped Mr. Schlossberg and his then partner, Mr. Cassidy, who orchestrated the process for them, to recruit other clients who saw the prospect of getting some money.

But even more importantly, it is no coincidence that the outbreak and subsequent growth of scientific earmarking has tracked the growing concern over the decline of the ability of American business to compete at home and abroad and then with the general decline of the American economy. It is now a cliche to say that the future health of our economy rests importantly on the strength of our science and technology and on our ability to use the fruits of S&T for profitable ends.

But a consequence of that widely shared view is that universities, the site of most basic research and much advanced technology, are important players in the future of the American economy, and it is not a long leap from that conclusion to the further conclusion that there is bound to be great economic value to having in the neighborhood a university that is actively engaged in economically productive work.

Well, for reasons that are beyond the scope of this inquiry, I believe that the connections I have just described are oversimplified and not nearly as direct or assured as many enthusiasts would have them, but there is no denying the connection is believed to exist, and if there is one thing above all others that is certain in our political system, it is that anything that is thought to have economic value for constituencies will have political value for those who represent them, and there, Mr. Chairman, is the cause—is the root cause of earmarking. It is in the political interests of Members of Congress to help their constituencies, and it is in the institutional interests of university presidents who wish to use the argument to find ways to help their Congressmen to help their constituencies. No proposal I have seen for limiting earmarking addresses the root cause, and so none seems to me to have much chance of success.

Of one thing I am reasonably confident though. The answer to the problem does not lie within the rules of the Congress. What has been unleashed in the last decade into the middle of science policy is one of the most powerful impulses of our entire political system, namely that of constituency interest. The wonder is that for so long science seemed to have been largely exempt from its operation. My speculative explanation for that fact is that it is only relatively recently that those Congressmen and Senators who created the system passed from the scene and those who have succeeded them have, understandably perhaps, a less proprietary feeling for the institutions and practices they inherited.

That is almost certainly too romantic, and it probably gives too much credit to the older generation and too little to the present one, but the fact remains that the Congress has shown little ability or inclination to stop its appropriating committees from engaging in earmarking in any area. Neither Gramm-Rudman nor the budget summit made the slightest dent in the practice, and I see no reason to believe that President Clinton's budget package, whatever it turns out to be, will have any greater effect.

Proposals to require authorizing of projects before they can be appropriated, while well meaning, may only enlarge the number of Members who have leverage on behalf of their constituencies and would in any case be easy to overcome in the appropriations process.

It pains me to say it, but the genie, I fear, is out of the bottle, and it is notoriously hard to put it back. The only hope I see lies in breaking the perceived connection between what goes on in universities and local economic prosperity. As I have suggested, that connection has been greatly exaggerated. I believe that will eventually be seen and that the realization will cause considerable disillusionment toward those who sold the public on the idea in the first place.

Clearly, it would be best to get it right ourselves, and there are those, like President Harold Shapiro of Princeton, among others, who have argued forcefully that only bad policy can result from a misunderstanding of what it is that universities really do and where that fits into the process of economic growth. At best, I am describing a long process, but it seems to me preferable to a continuing series of losing rear-guard actions that only serve to irritate Members who have been told by university presidents and lobbyists that they are, after all, only doing the Lord's work.

Now I don't want to be misunderstood. If I am pessimistic about the possibility of dealing with the problem, it is not because I am sanguine about the continuing mischief that the practice will produce. I believe that we are cheating ourselves, and not just out of some money but, more importantly, out of some part of the future that high-quality science and technology can help to produce. In intellectual work, there is no substitute for quality.

The earmarking process is indifferent to quality. That is not to say that previous earmarks will not result in some good work being done, it is simply to say that a process that does not even pretend to be based on an assessment of quality is less likely, on the average, to find it than is a system that has proven its ability to deliver. The representations of those seeking funding, no matter how sincere they may be, are not a substitute for competition based on scientific promise judged by people who are competent to do so.

Perhaps I am too pessimistic. I hope so, and, to tell you the truth, I hope you think so. Anything that this Committee can do to slow the spread of this erosive practice will count as a genuine service to the public for which you will be rewarded with the enmity of your colleagues and, I hope, with the thanks of your country.

Thank you, Mr. Chairman.

[The prepared statement of Dr. Rosenzweig follows:]

Testimony of Robert M. Rosenzweig
Former President, Association of American Universities

United States House of Representatives
Committee on Science, Space and Technology

June 16, 1993

Mr. Chairman and Members of the Committee:

I appreciate your invitation to discuss with you again the issue--I would say the problem--of the earmarking of scientific work. The last time I had that opportunity was in 1985. Much has happened since then, but nothing that has happened suggests that my views on the subject had any influence on the course of events, which--from my point of view--has steadily gone from bad to worse.

I want to commend the Chairman and the Committee for addressing this problem, and for doing it in a way that may shed light as well as throw heat. As I understand the purpose of this part of your inquiry, it is to focus on the causes of the growth of scientific earmarking. I have some thoughts on that subject, but before offering them, it is only fair to state my view of the practice itself. Analysis is rarely wholly dispassionate or without interest, so it is important that those who enter the debate be clear and open about their positions and their interests--what they stand to gain and what they stand to lose if their policy preferences prevail.

My own view, which I have expressed publicly many times over the last decade, is that science funding through primarily political processes and without regard to careful judgment of the scientific merits of the work to be done is a pernicious practice, destructive of high-quality science, wasteful of the public's money, and erosive of public confidence in the integrity of universities and the political process.

Those who see the matter differently are prone to argue that they would really prefer not to seek earmarks, but they are forced to do so because there are no regularly authorized and peer-reviewed facilities programs to which needful institutions can apply. That strikes me as roughly akin to arguing that, because the bank will not lend you money for the purpose for which you want it, you are justified in robbing the bank. Moreover, where it was once argued that earmarking was, after all, only being done for facilities projects, it is now the case that much earmarking is being done for scientific projects, for which there are many regularly authorized and peer-reviewed programs.

A second line of argument holds that the whole allocation system is rigged by an elite group of institutions to which outsiders cannot gain admission.

Therefore, it is argued, even if there were regular programs to which one might apply, it would be fruitless to do so. In that view, seeking earmarks is not merely justifiable on pragmatic grounds, but strikes a populist blow against monopolists who control the market by excluding competitors.

I have described these two justifications for earmarking in language that is perhaps more colorful than their advocates would use, but not, I think, inaccurate. The first of the justifications falls of its own weight. The second needs to be addressed because it provides a good deal of the political fuel that propels earmarking. It is an argument that I, especially, need to bring before you because, for ten years ending this past March, I was the principal representative in Washington of the alleged monopolists. My defense against the often-repeated allegation that my position on this issue and that of my employer, The Association of American Universities, was nothing more than another market-controlling strategy is that the whole notion of a system that is controlled by a few institutions that act to exclude others is false--verifiably, demonstrably, and empirically false.

The record is so clear that it is almost insulting to have to cite it to an informed audience. At the end of WorldWar II, to date roughly the time at which significant federal support of university-based research began, there may have been twenty serious research universities in the country. Most of those are still among the leading universities in the land, and one would be hard put to it to argue that the nation would have been better off if early policies had directed research elsewhere. But the contrast between then and now wholly demolishes the notion of some conspiracy of the rich and powerful. To list just some of the universities that were not then among the elite but are now among the world leaders in research makes the point well enough: Stanford, UCLA, U.C. San Diego, University of Arizona, University of Florida, Washington University in St. Louis, Vanderbilt University, University of Georgia, University of Massachusetts. I stop at the risk of insulting some good friends, but this list is long enough. Where once there was a score of leading universities, there are now easily more than a hundred seriously engaged in research and graduate education at a high level and on a large scale, all with major support from the federal government. Our methods of supporting research over these years have surely not been flawless, but it is simply preposterous to argue that among their flaws has been a drive to monopolize.

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The causes of the growth of earmarking are, in fact, more serious and more interesting than the justifications of those who seek earmarks. If the practice is to be controlled or directed toward some useful national purpose, it is important to understand what has been animating those who engage in it, in the universities, and in the Congress. Let me take a crack at explaining what has been happening.

There has always been a certain amount of earmarking in science and education funding, but until 1983 it was generally seen as a marginal practice, not engaged in by major institutions. That changed in 1983, when Columbia University and Catholic University, both members of AAU, sought and won earmarks for science facilities. Their stature conferred a kind of legitimacy on the act, or at least the cover of respectability, and their very public success undoubtedly helped Mr. Schlossberg and Mr. Cassidy, who orchestrated the process for them, to recruit other clients who saw the prospect of getting some money.

But even more importantly, it is no coincidence that the outbreak and subsequent growth of scientific earmarking has tracked the growing concern over the decline of the ability of American business to compete at home and abroad and then with the general decline of the American economy. It is now a cliché to say that the future health of our economy rests importantly on the strength of our science and technology and on our ability to use the fruits of S&T for profitable ends. A consequence of that widely shared view is that universities--the site of most basic research and much advanced technology--are important players in the future of the American economy. It is not a long leap from that conclusion to the further conclusion that there is bound to be great economic value to having in the neighborhood a university that is actively engaged in economically productive work.

For reasons that are beyond the scope of this inquiry, I believe that the connections I have just described are oversimplified and not nearly as direct or assured as many enthusiasts would have them. But there is no denying that the connection is believed to exist, and if there is one thing above all others that is certain in our political system, it is that anything that is thought to have economic value for constituencies will have political value for those who represent them.

There, Mr. Chairman, is the root cause of earmarking: It is in the political interests of Members of Congress to help their constituencies and it is in the institutional interests of university presidents who wish to use the argument to find ways to help their Congressmen to help their constituencies. No proposal I have seen for limiting earmarking addresses the root cause, and so none seems to me to have much chance of success.

Of one thing I am reasonably confident. The answer to the problem does not lie within the rules of the Congress. What has been unleashed in the last decade into the middle of science policy is one of the most powerful impulses of our entire political system, namely that of constituency interest. The wonder is that, for so long, science seemed to have been largely exempt from its operation. My speculative explanation for that fact is that it is only relatively recently that those Congressmen and Senators who created the system passed from the scene, and those who have succeeded them have understandably, perhaps, a less proprietary feeling for the institutions and practices they inherited. That is almost certainly too romantic, and it probably gives too much credit to the older generation and too little to the present. But the fact remains that the Congress shows little ability or inclination to stop its appropriating committees from engaging in earmarking in any area. Neither Gramm-Rudman nor the Budget Summit made the slightest dent in the practice, and I see no reason to believe that President Clinton's budget package, whatever it turns out to be, will have any greater effect. Proposals to require authorizing of projects before they can be appropriated, while well-meaning, may only enlarge the number of Members who have leverage on behalf of their constituencies and would, in any case, be easy to overcome in the appropriations process.

It pains me to say it, but the genie, I fear, is out of the bottle, and it is notoriously hard to put it back. The only hope I see lies in breaking the perceived connection between what goes on in universities and local economic prosperity. As I have suggested, that connection has been greatly exaggerated. I believe that will eventually be seen, and the realization will cause considerable disillusionment toward those who sold the public on the idea. Clearly, it would be best to get it right ourselves, and there are those, like President Harold Shapiro of Princeton, who have argued forcefully that only bad policy can result from a misunderstanding of what it is that universities really do and where that fits into

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the process of economic growth. At best, I am describing a long process, but it seems to me preferable to a continuing series of losing, rear-guard actions that only serve to irritate Members who have been told by university presidents and lobbyists that they are doing the Lord's work.

I do not want to be misunderstood. If I am pessimistic about the possibility of dealing with the problem, it is not because I am sanguine about the continuing mischief that the practice will produce. I believe that we are cheating ourselves, and not just out of some money, but more importantly out of some part of the future that high-quality science and technology can help to produce. In intellectual work there is no substitute for quality. The earmarking process is indifferent to quality. That is not to say that previous earmarks will not result in some good work being done; it is simply to say that a process that does not even pretend to be based on an assessment of quality is less likely on the average to find it than is a system that has proven its ability to deliver. The representations of those seeking funding, no matter how sincere they may be, are not a substitute for competition based on scientific promise judged by people who are competent to do so.

Perhaps I am too pessimistic. I hope so, and I hope you think so. Anything that this Committee can do to slow the spread of this erosive practice will count as a genuine service to the public, for which you will be rewarded by the enmity of your colleagues and the thanks of your country.

The CHAIRMAN. Thank you very much, Dr. Rosenzweig.

And now, to balance that statement, we will hear from Mr. Schlossberg, who I think will help us to understand the merits of earmarking.

Mr. Schlossberg.

Mr. SCHLOSSBERG. Thank you, Mr. Chairman.

I hope the fact that I am in the center of the panel symbolizes the fact that I have a centrist position on this issue.

I have a statement that I prepared for the committee, and I understand that will be made part of the record, so I will just try to speak for a few minutes extemporaneously.

The CHAIRMAN. Without objection, the full text of your statement will appear in the record, and you may elaborate, revise, alter, or do anything else that you wish, as you see fit.

Mr. SCHLOSSBERG. Thank you.

As I said in my statement, I came to this business of earmarking somewhat accidentally. In the early seventies, I was the Staff Director of the Senate Select Committee on Nutrition and Human Needs Chaired by Senator McGovern. In that capacity, we initiated through Congress dramatic reforms in the nation's food assistance programs, making the food stamp program the nation's family feeding program, doubling the size of the school lunch program, creating the WIC program, and expanding the school breakfast program.

In the process of doing that—and this is a science issue—we discovered that there was precious little scientific information available in the field of nutrition and that nutrition was essentially a stepchild of the federal science establishment. It was wanted neither by NIH nor by USDA except insofar as USDA was interested in animal nutrition research for the most part.

When I started my consulting business, I was primarily working in the area of food agriculture and nutrition, but a friend and colleague, Dr. Jean Mayer, became the President of Tufts University, and several years after I went into business he called me, and he asked if there were funds available to create a Human Nutrition Research Center at Tufts University. I said I really didn't know but I would go back and I would look into the situation and try to give him some advice, which I did.

What I discovered at that time was that there was statutory authority on the books to create a Human Nutrition Research Center funded through the Department of Agriculture but that no such center had been built for many years. As a result, we initiated a process at that time, which I think led to much of what is taking place today, to seek through Congress and earmarked appropriation for a Center at Tufts University. Now in doing that, I think we established a way of doing things that was more or less procedurally correct and acceptable to most people that were involved in it.

First of all, we developed a very sound proposal for the project, and, in doing that, we involved a broad segment of the scientific community. We presented that proposal to the Department of Agriculture, and we presented it to Members of Congress both who represented Tufts and Massachusetts as well as other Members interested in nutrition. We then went through the hearings process and testified on the proposal. The proposal went through the subcommittee, committee, and floor process and was finally funded.

In pursuing these steps, I felt at that time that we were following the regular congressional process, that being that there was statutory authority, that we presented it to the appropriate Members of Congress and the agency, and that, after having been reviewed through all of those steps, the project was funded. That is the basic process that I have tried to follow through all of the projects that I have worked on.

This project at Tufts, by the way, was followed by additionally earmarked human nutrition research projects at Baylor University and one at the Western Human Nutrition Research Center in San Francisco.

I think it is fair to say that without congressional earmarking there would be no major human nutrition research activity in the Federal Government and that without this—without the creation of what is the world's leading human nutrition research establishment now in the United States, that the Department of Agriculture and the United States Government and the American people would find it very difficult to get the guidance that they need in formulating policy regarding the government's food assistance and general nutrition activities.

So insofar as I can speak specifically about the merits of earmarking, I think that this probably represents an outstanding case of congressional initiative following up on a congressional initiative in the first place to create a Federal Food Assistance Program for the Twentieth and Twenty-First Century.

Now, as I said, in the clients that I represented after Tufts, this was a process that I tried to continue to follow: one, that there be some statutory authority; two, that there be broad congressional and agency involvement in reviewing the project; and that if the project could go through all of those steps and be funded, then obviously the project stood the test of public scrutiny and was therefore a justified project.

In my mind, Mr. Chairman, the main issue here—as I think Dr. Rosenzweig has said, though he has a vastly different view of this than I do—is quality, that we all want quality projects to come out of whatever process we are pursuing and following here. I am not an expert on peer review, and I have no criticisms to make of the peer review process. I do think that the genius of the American system of government and of the country is competition, as much competition as it is possible to create in as many different forms as possible. I do think that the earmarking process is another form of competition and, if it can be legitimately and properly controlled and reviewed, that it can add to the Nation's scientific effort rather than detract from it.

Let me speak for a minute about the specific issues that the Committee is trying to address. I can't speak to the merits of every project that has been earmarked, but I can tell you that in my case, for the most part, universities have approached me because they have, in one form or another, a desperate need for facilities to conduct science in. It is not necessarily a case where they are looking to increase their science funding. In some cases it is simply a matter of maintaining it, of preserving it.

In one case, in the case of Columbia, which Dr. Rosenzweig mentioned, I think it is important to understand that Columbia University had a deferred maintenance backlog of something like $400 or $500 million, just deferred maintenance—roofs, plumbing, electricity, electrical systems. They had a chemistry building that was almost a century old, where people were in danger of either being electrocuted or flooded. They had a situation where the entire chemistry faculty was about to pick up and take itself some place else. That was the need that drove Columbia University to come to Congress for earmarked facilities.

Now there was another issue involved here. I don't think, number one, there was any question whatsoever regarding the scientific quality of the faculty of Columbia University in the chemistry area. Number two, as you may or may not know, the New York metropolitan area—New York, New Jersey, Connecticut—are the center of the pharmaceutical industry—one of the centers of the pharmaceutical industry in the country, and the pharmaceutical industry is one of the country's major sources of exports and major sources of revenue.

So after reviewing the need for the building, after meeting with the faculty, after being assured that this project had the support of the faculty, the administration, the trustees, and the business community, I felt there was ample reason to approach Congress for an earmarked appropriation for this facility. I can't say that I have gone back there, I can't say that I have evaluated the research that is taking place, but I think the way to properly determine whether or not earmarking is producing good science or bad science, and the only way to do it, is to go out and look at each one of these projects individually and try to determine on a comparative basis whether or not we are making a good investment here.

On the issue of the haves versus the have-nots and the economic development issue, I must say I agree with Dr. Rosenzweig. I don't think economic development, per se, is a good reason to invest in a science facility anywhere in the country. I think quality should be the issue. Quality always has been the issue in my mind. I hope that if we were to go to look at every project that I have been involved in, that we would find that it was a pretty good investment for the country, and I think that is the main concern here.

So, in conclusion, let me say this. I think that there is a national need here. The administrations, for whatever reason, have not proposed to meet this need. The higher education community in Washington, for whatever reason, has not decided to make facilities a priority as opposed to other needs that they have. That, despite Dr. Rosenzweig's statement that there is no connection between university research, technology, and economic development, I doubt that the current Administration would find that to be an agreeable statement.

And, finally, I think I should state that I have a bias here, as I tried to indicate from the beginning. I am a congressional person. I worked in the Senate for five years. I was involved in changing national policy regarding hunger and the American diet. It was all done through Congress, by Congress, at the Congress's initiative. We created a tremendous human nutrition research establishment that is the best in the world, all through Congress. So just based on my personal experience, I can't say that earmarking is a bad thing. I think if it is properly done and if it is properly reviewed it can contribute to the Nation's welfare.

Thank you, Mr. Chairman.

[The prepared statement of Mr. Schlossberg follows:]

TESTIMONY
BY
KEN SCHLOSSBERG,
PRESIDENT,
KEN SCHLOSSBERG CONSULTANTS
BEFORE THE
COMMITTEE ON SCIENCE, SPACE AND TECHNOLOGY
JUNE 16, 1993

Chairman Brown, Members of the Committee:

Thank you for the opportunity to appear before the House Committee on Science, Space and Technology to discuss the issue of academic earmarks. I hope that my personal experience in this area will shed some light on how the practice of academic earmarks developed and assist the committee and the Congress in developing consensus guidelines for them.

Let me begin with a few remarks about myself. I came to Washington thirty years ago as a graduate student in international affairs, then worked for several years as an investigative reporter, winning a Public Service Reporting Award from the American Political Science Association. For several years in the mid-1960s, I worked as an investigator in the Office of Ecnomic Opportunity, conducting national evaluations of programs as diverse as Job Corps, Vista, Community Action, Legal Services and Head Start. These evaluations formed the basis for major changes and, I hope, improvements in these programs.

From 1969 through 1974, I served as the Staff Director of Senate Select Committee on Nutrition and Human Needs, chaired by Senator McGovern, and popularly known as the Senate Hunger Committee. As the committee staff director, I organized investigations into the commodity distribution program, food stamp program and national school lunch program. As a result of legislative initiatives proposed by the committee, the food stamp progam was made the nation's primary family food assistance program, the national school lunch program was doubled in size, the school breakfast, WIC and elderly feeding programs were created. I also organized the committee's oversight of these programs to insure that they were properly implemented by the Administration of the time and the Department of Agriculture.

When I left the Senate in 1974 to start private consulting, academic earmarks were the furthest thing from my previous experience and mind. Then in 1976, Dr. Jean Mayer, a former advisor to the Select Committee and chairman of the 1969 White House Conference on Food, Nutrition and Health, became the President of Tufts University.

He asked me to visit with him and, it turned out, he had some ambitious plans, including creating a Human Nutrition Research Center and a veterinary school for the New England Region. He asked me if there were federal funds to support these kinds of projects. I said I didn't know but would look into and report back.

I discovered that there was - and wasn't - federal support for academic facilities projects. There was in the sense that there were statutes on the books authorizing various agencies to fund academic facilities. There wasn't in the sense that the appropriations committees, having appropriated hundreds of millions for academic facilities, had concluded that the demand had been met and other priorities were more important. I also discovered that some individual institutions, here and there, had successfully sought funding - earmarks - for facilities in the recent past.

Based on this information, President Mayer decided to proceed with his initiatives. I was delighted to help him. Keep in mind, I was representing one of the nation's leading scientists in his field of expertise at the time, there was statutory authority and recent precedent. In the process of pursuing the first project, the Nutrition Center, we developed a procedure that I have attempted to follow and, more or less, have followed with almost all of my clients and projects since.

First, we developed a sound proposal for the facility, physically and programatically. Second, we consulted with members of Congress and their staffs, as well as with Agency officials and their staffs. Third, we participated in the committee hearing process, testifying and responding to questions as they arose. We operated in the open, subject to congressional, agency and public scrutiny at almost every step along the way.

My attitude then and my attitude now about projects in which I am involved is that if they can't stand the light of day then they shouldn't be shopped around in the dark.

Within a few years, we had achieved considerable success for Tufts - funding for the Nutrition Center, Veterinary School and a new building for the Fletcher School of Law and

Diplomacy. Word began to spread and other universities began to approach me. I was happy to talk to them and, if good projects could be developed, represent them, following the same process I had developed with Tufts.

In no case, Mr. Chairman, was there any project that could even remotely be described as a boondoggle and, in many cases, the project was both vital to the the future of the institution and served a real national purpose.

For instance, despite a great deal of evidence that diet plays a crucial factor in maintaining health and preventing disease, neither NIH nor the Department of Agriculture were moving aggressively to expand research in this area. The Tufts Nutrition Center on Aging was the first to be opened in more than a decade. It was followed by the Baylor Nutrition Research Center on Children. And that was followed by the Western Human Nutrition Research Center in San Francisco. The United States is now the center of human nutrition research in the world and it was all the result of congressional earmarks.

Additionally, many of the projects epitomized the academic and scientific faciliites crisis that the nation is facing. I mean by this Mr. Chairman, that the projects were replacing facilities anywhere from fifty years to almost a century old. That the research faculty was outstanding by anybody's estimation and, in one case, without the new facility would have left the university en masse. And that the projected research was vital to maintaining an important economic activity in the area or developing a new one. The projects were supported by the faculty, the administration, the trustees, the business community and the local and federal political leadership.

About this time period, however, there were several developments that complicated the process in which I was accustomed to operating. One, some of the statutes authorizing facilities funding expired and were not replaced. Two, the congressional budgetary situation began to become much more restrictive. Both of these developments affected the way I and others proceeded, as well as the reaction that began to earmarks in some parts of the academic community.

In the first instance, frankly, I was concerned that it would no longer be possible to fund facilities through agencies that did not have statutory authority. Fortunately, from my clients' point of view, I discovered that a Senator had found a solution to that problem by legislating the authority on an appropriations bill. I happily followed suit.

In the second instance, I began to contend with objections that earmarks for facilities were competing with funding for research. I would like to emphasize, Mr. Chairman, that when I began representing Tufts and others at the beginning of my practice, all of the funding for my projects were add-ons to existing spending. They were add-ons for science generally and

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in no way consumed funds for other worthy science programs.

Frankly, Mr. Chairman, I wasn't happy with either of the problems that I was facing. I don't mean by this to in any way criticize the appropriations process through which many earmarks continue to be funded. I think the members of the appropriations committee and the staff are doing the best they can under difficult circumstances to meet a real national need. But it is a heavy burden for them to carry alone. I also think they have been subjected to a great deal of unfair criticism in terms of the merits of these projects and the effort they have put into determining those merits.

For myself, I decided that if statutory authority did not exist for a project in which I was involved, then I would seek an authorization for a project in conjunction with approaching the appropriations committee to fund it.

On the competitive funding question, I seek to avoid situations in which funding for a project in which I am involved is taken out of funds for other research activities.

Having said that, Mr. Chairman, let me add that I think the blanket indictment of congressional earmarking of academic facilities as simply a "pork barrel" activity and a threat to scientific research in America is wrong and represents, in my opinion, an unbalanced view of the nation's academic and scientific needs. I do not believe that every dollar for research is sacred and every dollar for facilities profane.

In fact, to some extent, I think the fight about this issue is like a wolf caught in a trap, gnawing off its own leg to solve its problem. The trap is a lousy budgetary situation. The answer isn't to gnaw off either the facilities or the research funds. There should be funding for both.

I realize, Mr. Chairman, that the purpose of this hearing and others to follow is to try and answer some basic questions regarding academic earmarking - its motivations, impact on the quality of science and technology in the country, relationship to the peer review system and alternatives to how it is currently taking place. I will try and make some comments on each of these issues to the best of my experience and ability.

The motivation is primarily need, sometimes desperate need, which I believe has been well established by many studies.

By desperate, I mean the following. One of the nation's most prestigious marine biological laboratories had a turn of the century - and I don't meant the one coming up - ancient fishing shack to maintain its marine animals before they go to laboratories all over America. These marine animals, by the way, have formed the basis for medical research that has produced breakthrough discoveries in the cure and prevention of human disease. This ancient facility has now been replaced by a state of the art Marine Resources Center in which marine species can be cultured genetically, dramatically enhancing their ability to be used for basic biomedical research.

Incidentally, in the case of this project and others in which I am involved, the proposal was widely reviewed by scientists outside of the institution itself, providing a form of quality control similiar to a peer review process.

I am in no position to judge the broad impact of earmarking on the quality of the nation's science. I like to think the impact of my projects has been positive. I am sure that is true of many others. I don't doubt that there are some real doozies out there. But, over all, the record on facilities is probably as good as the record on anything else, meaning research projects or highway demonstration programs. I don't see or read everything going on in this area but I haven't come across any facts contrary to that conclusion.

From the beginning of the controversy over earmarks, I thought there were some strawmen being marched out onto the field of battle by both sides.

Peer review, by the critics, is one of them. Proposals for research facilities and research projects are not exactly the same and have never been subjected to the same kind of reviews, even when there was a large authorized and funded academic facilities program. So criticizing congressional earmarking for not paralleling peer review as practiced by NIH, NSF and other agencies is making a bad comparison. Furthermore, while I hear the argument that congressional earmarking will somehow undermine traditional peer review of research proposals, I haven't seen that demonstrated to be true.

On the other side, the proponents of earmarking have marched out the strawman of the have-nots versus the haves. The argument is that earmarking serves the needs of the have-nots, allowing them to become competitive with the haves for peer reviewed funds. As you noted in your background documents, at least fifty percent of earmarks have gone to haves and there is no evidence as yet that the provision of facilities to the have-nots has significantly increased their funding through the peer review process.

I'm not sure what these findings tell us. As I have tried to indicate, I don't think these are the real issues. Many institutions that are seeking facilities aren't looking to increase their research funding, a difficult objective these days of flat budgets. They are looking to maintain their funding. Maintain their faculties. Stabilize their institutions. I think the only way to evaluate the value of earmarked facilities is to go out and look at them individually and evaluate the research that is now taking place in them.

The real issue is quality control, whatever system is being used to award facilities or research grants, and everybody involved in the process believing that quality is being produced.

In conclusion, I'd like to say something about the relationship between Congress and the Executive Branch, Mr. Chairman, admitting, in effect, my own bias. As I said, I worked in an Executive Branch agency for several years and then five years in the Senate. I have a real bias in favor of Congress. The committee for which I worked initiated and rammed through a reluctant Executive Branch major changes in the nation's food assistance, health research and food labeling programs. Maybe I'm wrong, but in my time in Washington, as many initiatives to make the government serve the American people better have come from the Congress and marched down the Hill, as have come from the other way around. Congress is the branch of the government closest to the American people. It is the most open branch of the government. It is the most flexible. By and large, it is not a bureaucracy, though it is considerably larger and more complicated a place than the one in which I worked.

For whatever reasons, the Executive Branch has not chosen to address the dire need to replace and renovate outdated academic and research facilities across America that are vital to our educational and scientific/technological base. Congress is responding to that need. I am sure that there are ways to improve the product that is coming out of that response but, absent any other initiative, I think the response should continue.

Thank you, Mr. Chairman. I would be happy to any questions that the committee may have. I would also like to have included in the record as part of my testimony an article I wrote for the Chronicle of Higher Education on the issue of earmarking.

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Point of View *By Ken Schlossberg*

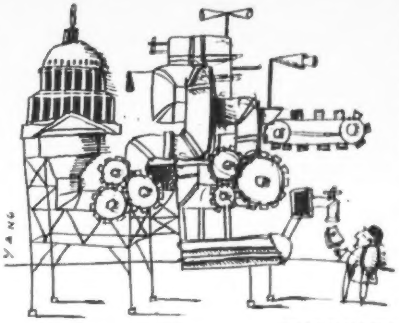
Earmarking by Congress Can Help Rebuild the Country's Research Infrastructure

WHEN THE 101ST CONGRESS reconvenes this week, it will face continuing controversy about the earmarking of special appropriations for scientific facilities. Spokesmen for the nation's science establishment and leading higher-education associations are concerned that the practice may undermine the nation's scientific effort by turning the awarding of research grants from a merit-based process to one of rank political pork barreling. Two Senators are proposing that such earmarking be subject to a legislative objection that could eliminate the practice.

Other members of Congress, however, feel that earmarking is justified, does not subvert the peer-review process for research grants, and actually adds to and diversifies the nation's scientific base.

I believe that the discussion of this controversy is generating more heat than light.

First, the distinction between research grants and facilities grants has been lost (and, with few exceptions, earmarked projects have involved facilities, not research projects). The primary concern of Frank Press, the president of the National Academy of Sciences, and others opposed to Congress's earmarking funds for facilities is the potential for undermining the peer-review process by which the National Science Foundation and the National Institutes of Health, among others, award research grants. While the process of peer review is sometimes criticized as exclusive—controlled by a relatively small number of competitors and colleagues—there is also a consensus that good science generally has resulted.



JAMES YANG FOR THE CHRONICLE

So far as I know, nobody involved in the earmarking process has proposed that peer review be politicized or eliminated where research grants are concerned. Quite the opposite. The proponents of Congressional earmarking of funds for research facilities have argued that the results of widening the nation's research infrastructure will be more meritorious research proposals for scientific peers to review and more competition in the peer-review process.

The argument as presented by the opponents of earmarking presupposes that grants for facilities should be subject to the same peer review as grants for research. At the moment, of course, this is largely an academic discussion. No major facilities program is now administered by any agency under a peer-review process. Congress authorized a major facilities program for the N.S.F., but it received only $20 million for fiscal 1990. Further, the foundation is giving priority to the renovation of existing facilities rather than to new construction. Finally, the procedure by which facilities grants are being approved is not, strictly speaking, a review process based solely on the quality of the institution's scientific program. The process specifically considers other criteria, such as the needs of the institution itself, geographic distribution, and the goal of bringing new institutions into scientific research.

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Herein lies a crucial point to be understood in this debate. Facilities programs, when they were prominently financed by the NSF and other agencies in the 1960s, always awarded grants based on the demonstrated need of the institution as well as its other criteria, including its research capability. The criteria emphasized proof of the institution's capacity to plan, build, and operate the proposed facility. Indeed, because facilities programs were more generously funded, it was assumed that almost any fairly prominent institution would file a satisfactory application and receive a grant. When one takes these facts into account, comparing the criteria for facilities grants with those for research grants makes little sense. Furthermore, Congress has always treated research facilities differently from peer-reviewed research grants. As in almost every other area where facilities and construction are concerned, it has reserved to itself the right to earmark money for specific projects, while at the same time allowing agencies to make selections competitively. In this sense, it has treated research facilities in the same fashion as contracts for military equipment, highways and bridges, federal buildings, airports, or water projects.

Earmarking is a way for Congress to deal with special needs without interfering with the overall administration of programs that it has created, just as agencies use their authority to award grants and contracts without competitive bidding when they feel that it is necessary to circumvent their established competitive procedures. Agencies that contract bidding and contract language that is uniquely suited to one potential contractor or only a few. The genius of the American system is that it is not rigidly inflexible and that it recognizes the value of leaving some latitude to whatever system is operating to meet changing circumstances and situations.

THE CHANGING CIRCUMSTANCES that members of Congress are attempting to meet on an ad hoc basis by earmarking money for research facilities is the acknowledged deterioration of the nation's scientific research infrastructure. This has now been documented by private and governmental studies that found many billions of dollars' worth of immediate needs. Yet pressure for lawmakers or federal agencies to establish and finance facilities programs that would meet those needs has been lacking. The leading higher-education associations just do not have facilities at the top of their lists of priorities for federal action, not when they view the current budgetary situation as a zero-sum game in which their first goal is to maintain current appropriations levels for student assistance and research grants. Thus, financing for facilities remains an orphan.

This also means that institutions that currently have facilities, or have the capacity to obtain them without federal support, are in the best position to compete for research grants. Institutions that need federal support for facilities but have no place to go for it must either accept the situation as is or resort to some other means. Many of them, including members of the Association of American Universities and the National Association of State Universities and Land Grant Colleges—organizations strongly opposed to earmarking—have chosen to go directly to Congress to make their case.

Most Congressmen view enhancing the research capacities of institutions in their states or districts as a positive action. Since in most cases supporting a special appropriation for a facility has absolutely nothing to do with reducing financing for basic research or weakening the peer-review process, they have difficulty understanding the vehement opposition that has developed. Their confusion is compounded by the fact that if a poll were taken, most universities would support the need to broaden the geographic and institutional distribution of research facilities around the country. Furthermore, the members' activity in this regard is no different from their efforts to represent the special needs of their districts and constituents in any number of other areas over which Congress has oversight or in which it interacts with the executive branch.

THE EARMARKING ISSUE recently has been most hotly joined on the defense appropriations bill. Senators Sam Nunn of Georgia and John C. Danforth of Missouri have objected to earmarks attached to the fund for stockpiling strategic materials and other defense research activities. They have argued that unless such special set-asides are authorized by relevant Congressional panels and are proved to be directly tied to the mission of the Defense Department and a particular program, they should be barred. They inserted language in last year's defense appropriations bill requiring the Secretary of Defense to report to Congress on whether earmarks in that measure met those criteria.

This year, the two Senators, along with some House members, succeeded in eliminating proposed earmarks from the conference bill on defense appropriations. They have also proposed an amendment to the rules of the Senate that would allow any Senator to knock out a set-aside for a university research facility in any bill that comes to the floor.

Their amendment raises one question immediately: If such a rules change is applied to earmarking for university research facilities, why shouldn't it also be applied to earmarking of all kinds? What is the principle separating university facilities from other projects or special circumstances? Why shouldn't such a rules change apply to dams and waterways, highways and bridges, airport improvements, and specially directed tax breaks? I doubt that Congress will decide to give one lawmaker the right to kill an earmarked project in another's state or district, and thus I expect that earmarking will continue as a Congressional prerogative.

The Senators' arguments are commendable. Projects should be meritorious. They should be needed by the institutions seeking assistance, and they should be related to the particular federal agency's scientific mission. One way to achieve those goals would be to have projects approved by Congressional authorization committees and reviewed by appropriate agencies before or after Congress enacts the appropriation.

Such procedures would approximate the regulatory process by which an agency must justify its approval of a contract or grant without competitive bidding. And they would restore credibility to the process by eliminating much of the current criticism of special set-asides for research facilities as simply pork barreling.

Ken Schlossberg is president of Ken Schlossberg Consultants, a company that advises universities and other research institutions.

Academe Gets $763-Million in Year From Congressional Pork Barrel

Despite deficit, lawmakers added 12% to funds meant for projects at specific colleges

By Colleen Cordes
and Katherine McCarron

WASHINGTON

CONGRESS EARMARKED a record-breaking $763-million for projects involving specific colleges and universities in the 1993 fiscal year.

The total was up nearly 12 per cent from the previous record, which was set in fiscal 1992, according to an analysis of the federal budget by *The Chronicle*.

Earmarked awards are those that Congress directs agencies to make for specific projects involving particular institutions—and that the Administration had not included in its fiscal 1993 budget proposals. They are not based on competitive reviews of their merits.

Policy experts cite several reasons why lawmakers filled up the pork barrel for academe: election-year politics, Congressional enthusiasm for research and training projects aimed at pressing industrial issues, and the lack of other substantial sources of federal support for renovating academic facilities.

The growth in earmarks flew in the face of lawmakers' complaints about tight spending limits and their struggle to deal with the federal deficit.

The earmarks ranged widely. The University of Georgia received $76,000 to study urban pests. The University of San Francisco received $1.5-million for a new center for Pacific Rim studies. And a consortium that includes six universities received $42-million for a new building for work on the human dimensions of global change.

Every state received at least one earmark. It is not possible to determine exactly how much money was directed to each, because some earmarks were shared by universities in more than one state.

But assuming that earmarks were to be shared equally by the institutions involved, the most money was earmarked to Pennsylvania—about $73-million. Rounding out the top five were Michigan, Maryland, Wisconsin, and New York, in that order. Universities in West Virginia, traditionally one of the most successful states, fared less well this year, receiving earmarks worth about $15-million.

SOME EXPERTS ARE DISTRESSED

A complete list of the earmarks, organized by state, begins on Page A22.

The resilience of Congressional earmarking to date distresses some academic experts. "I am not surprised that the total keeps going up," said Joseph P. Martino, a senior research scientist at the University of Dayton. "Once the pork barrelers see they can get away with it, they will continue to try. This is merely a symptom of the overall corruption of the Congressional appropriations process." Mr. Martino is the author of *Science Funding: Politics and Porkbarrel*—which traces the history of federal support for science.

Others defend the practice, even though they expect that lawmakers will find it harder and harder to provide money for earmarks in the future.

"It is the classic American way," said the Rev. Paul S. Tipton, president of the Association of Jesuit Colleges and Universities. "The Congressman goes to Congress to help his district out. The people inside the Beltway like to criticize. But frankly, that is why these guys and ladies are elected—to help a local university—that is what they do. I am personally quite supportive of it."

Earmarking, while still on the rise, is not growing as fast as it did in fiscal 1991 and 1992. This kind of directed spending went up more than 80 per cent in 1991, and by 38 per cent in 1992.

'IT'S GOING TO NOSEDIVE'

Many college lobbyists believe fiscal 1994 will be a much tougher year for earmarks, citing the warnings they have already received from Capitol Hill about the squeeze on money. Others agree.

"I think it's going to nosedive dramatically," predicted Richard Munson, executive director of the Northeast-Midwest Congressional Coalition.

Mr. Munson, an expert on the appropriations process, pointed to two changes this year: a new, much less sympathetic chairman of the House Appropriations Committee and a Democratic White House.

The new chairman of the full committee, Rep. William H. Natcher, a Kentucky Democrat, has served for years as chairman of the spending subcommittee for education and health programs. He has fought earmarks in his subcommittee's bills.

Now the word is out, Mr. Munson said, that Mr. Natcher "has laid down the law" in terms of opposing earmarks that have not been approved by a Congressional authorizing committee.

On the other hand, some of the most enthusiastic and powerful earmarkers are in the Senate. And many earmarks are added when House and Senate members get together to work out differences between their versions of spending bills.

Mr. Munson said powerful Democratic lawmakers now have far less need to earmark. In the past, they cited their distrust of the Republican Administrations' priorities as a major reason for selecting their own projects for support, he said.

Now, he said, they have more confidence in their fellow Democrats in the White House. Moreover, they can "earmark in a different way," he said.

"All they have to do is get on the phone" to Democratic Cabinet members to exert influence over which university projects are supported, Mr. Munson added.

Others said earmarking would slow because Congress has created several new competitive programs, strongly supported by the new Administration. These are aimed at the same goal of stimulating eco-

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nomic development that has been the purpose of many of the earmarks.

With money tighter than ever, at least two House spending subcommittees have announced that they will now require supplicants seeking earmarks to file answers to a standard set of questions so the committee can evaluate the relative merits of the proposals.

And Congress as a whole, infused with many newcomers, is under pressure to eliminate waste.

Still, no one expects politicians to stop trying to win money for the special projects of their constituents. Studies show that the longer lawmakers serve in Washington, the more they engage in pork barreling, Mr. Martino added.

The House Science, Space, and Technology Committee intends to spotlight the issue in a hearing this week. Rep. George E. Brown, Jr., the California Democrat who chairs the committee, this year sent out letters to universities asking for details about 50 of the earmarked projects.

The largest earmark this year—perhaps the largest ever—is for the consortium on global change.

Former Rep. Bob Traxler, a Michigan Democrat, calls himself the "father" of the project, the Consortium for International Earth Science Information Network. While chairing the spending subcommittee for space programs, Mr. Traxler said, he went to the University of Michigan and suggested that such a consortium would be "a grand opportunity" and that Congress could give it a jump-start. The university and two others in Michigan signed up.

Mr. Traxler recently retired from Congress, after helping the consortium to obtain about $73-million in earmarks in fiscal 1993.

The consortium is expected to continue to enjoy the favor of Congress. One of its new members this year is the University of Maryland at College Park. Sen. Barbara A. Mikulski, a Maryland Democrat, chairs the spending committee for the same programs in the Senate.

Mr. Traxler and other proponents of Congressional earmarking argue that politics inside agencies and inside the White House under Presidents Reagan and Bush were factors in determining which universities received money. Congressional earmarking, Mr. Traxler added, is an alternative to the hidden decision making that goes on in agencies.

Many earmarks are also hidden, however, since Congress sometimes includes only a vague reference to specific projects.

> **"Frankly, that is why these guys and ladies are elected—to help a local university. That is what they do. I am personally quite supportive of it."**

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SOME AGENCIES RESIST

On the other hand, the universities may not receive all of the earmarked money, because agencies sometimes resist making the awards if they are not clearly ordered to do so and if the recipients are not actually named in the spending bills.

The budget of the Department of Defense has become an increasingly popular vehicle for earmarks. But the agency has proven particularly recalcitrant. It delayed awarding money for many 1992 earmarks, as well as 1993 earmarks. The agency now has decided to finance fully most of the 1992 projects, but is still reviewing a few of them. It has just begun the process of seeking formal proposals from some universities named for pork-barrel money in fiscal 1993.

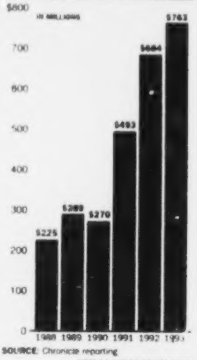
Congress stipulated that this latter group of institutions must undergo a merit review and allow the Pentagon to decide how much of the money set aside for each of them they should actually receive.

The fate of other 1993 military earmarks for specific universities is still undecided. Officials on some campuses say the delays have forced them to lay off people, delay construction projects, or shut down operations.

James D. Savage, assistant professor of government at the University of Virginia, said the list of universities that benefit from the practice of earmarking defied the old argument about earmarks' helping to right the balance of federal support between elite institutions and the "have nots."

Said Mr. Savage: "It's just being disbursed to everyone now—anyone who can get their hands on a piece of it." ■

How Earmarking Has Grown



SOURCE: Chronicle reporting

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CONNECTICUT

University of Connecticut, $[illegible] million from the Energy Department for the Advanced Technologies [illegible]; $1.557 million to be shared with 22 other universities, from the Agriculture Department for urban gardening programs; $1.5 million from the Defense Department for the [illegible] Machine; $2.478 million from the Commerce Department for an undersea research center; $1.45 million from the Environmental Protection Agency for a [illegible] development center on pollution prevention; $[illegible] from the Agriculture Department for the food marketing policy center.

DELAWARE

University of Delaware, $[illegible] from the Commerce Department for [illegible] oceanographic data.

DISTRICT OF COLUMBIA

George Washington University, $7.36 million to be shared with Georgetown University, Howard University, and three hospitals, from the federal appropriation to the District of Columbia as reimbursement for the cost of uncompensated care at its trauma center.

Georgetown University, $[illegible] million from the Defense Department for "programs of major importance to the department"; $7.36 million to be shared with George Washington University, Howard University, and three hospitals, from the federal appropriation to the District of Columbia as reimbursement for the cost of uncompensated care at its trauma center; $[illegible] million from the Transportation Department for [illegible]; $1 million from the Department of Housing and Urban Development for the National Center for [illegible].

Howard University, $7.36 million to be shared with George Washington University and Georgetown University, and three hospitals, from the federal appropriation to the District of Columbia as reimbursement for the cost of uncompensated care at its trauma center; [illegible]

FLORIDA

Barry University, [illegible]

Embry Riddle Aeronautical University, [illegible]

Florida A&M University, [illegible]

Florida International University, [illegible]

University of Florida, [illegible] from the Agriculture Department for urban gardening programs; $600,000 from the Energy Department for research in [illegible]; $276,000 from the Agriculture Department for the Biotechnology Institute.

University of Miami, $2 million from the Defense Department for "programs of major importance to the department."

University of South Florida, $1 million to be shared with Florida International University, from the Transportation Department for transit planning and research; $2 million from the Defense Department for "programs of major importance to the department."

GEORGIA

Clark Atlanta University, $[illegible] million from the Environmental Protection Agency for the Hazardous Substance Research Center; $100,[illegible] from the Commerce Department for a research and education center for science and technology.

Georgia Institute of Technology, $7.[illegible] million to be shared with three other universities, from the Department of Commerce for the National Textile Center University Research Consortium; $500,000 from the National Aeronautics and Space Administration for the Georgia Research Alliance; $500,000 from NASA for earth science research and analysis.

Morehouse School of Medicine, $4 million to be shared with seven other institutions, from the Environmental Protection Agency for the Association of Minority Health Professions Schools.

Savannah State College, $[illegible] from the Agriculture Department for the Center for Advanced Water Technology.

University of Georgia, $1.557 million to be shared with 22 other universities, from the Agriculture Department for urban gardening programs; [illegible] pests; $50,000 from the Agriculture Department for research on agricultural processing.

HAWAII

University of Hawaii, $1.557 million to be shared with 22 other universities, from the Agriculture Department for urban gardening programs; $3.111 million from the Agriculture Department for the Center for Tropical/Subtropical Agriculture; $3.072 million from the Commerce Department for an undersea research center; $1.7 million from the Department of Health and Human Services for training medical officers; $1 million from the U.S. Army for the Hawaii Small Business Development Center; $[illegible],000 from the Agriculture Department for research on floriculture; [illegible]85,000 from the Agriculture Department for pest control research for minor crops; $154,000 from the Agriculture Department for research on agricultural diversification; $150,000 from the Agriculture Department for research on multi-cropping strategies for aquaculture.

IDAHO

University of Idaho, $[illegible] to be shared with Washington State University and Oregon State University, from the Agriculture Department for research on water quality in the Northwest; $500,000 to be shared with eight other universities and a private company, from the Agriculture Department for research on crambe and winter rapeseed; $[illegible],000 from the Agriculture Department for the Biotechnology Facility; $[illegible],000 to be shared with Washington State University, from the Agriculture Department for research on [illegible]; $[illegible] to be shared with four other universities, from the Agriculture Department for research on [illegible]; $[illegible] to be shared with Oregon State University and Washington State University, from the Agriculture Department [illegible]

ILLINOIS

Black Hawk College, [illegible]

Bradley University, [illegible]

College of DuPage, [illegible]

College of Lake County, [illegible]

Illinois Central College, [illegible]

Illinois Eastern Community College, $2 million to be shared with 11 other colleges, from the Defense Department for the Community College Association for Technology Transfer.

Illinois Institute of Technology, $8.5 million from the Defense Department for the Instrumented Factory for Gears; $5 million from the Defense Department for "programs of major importance to the department."

Joliet Junior College, $2 million to be shared with 11 other colleges, from the Defense Department for the Community College Association for Technology Transfer.

Lewis and Clark Community College, $2 million to be shared with 11 other colleges, from the Defense Department for the Community College Association for Technology Transfer.

Northwestern University, $2.5 million to be shared with 17 other universities, from the Energy Department for the Midwest Plant Biotechnology Consortium; $517,000 from the Agriculture Department for the Biotechnology Center.

University of Chicago, $2.5 million to be shared with 17 other universities, from the Energy Department for the Midwest Plant Biotechnology Consortium; $40,000 from the Commerce Department for storm analysis.

University of Illinois, $1.557 million to be shared with 22 other universities, from the Agriculture Department for urban-gardening programs; $2.5 million to be shared with 17 other universities, from the Energy Department for the Midwest Plant Biotechnology Consortium; $500,000 to be shared with eight other universities and a private company, from the Agriculture Department for research on crambe and winter rapeseed; $487,020 from the Commerce Department for research on atmospheric modification; $210,000 to be shared with four other universities, from the Agriculture Department for research on beef carcass evaluation and identification; $200,000 from the Agriculture Department for research on aquaculture; $125,000 to be shared with the University of Arkansas, from the Agriculture Department for research on farm and rural business finance; $125,000 from the Agriculture Department for rural environmental research.

Western Illinois University, $2 million to be shared with Black Hawk College, the Eastern Iowa Community College District, the U.S. Army, and a local economic development group, from the Defense Department for the Midwest [illegible] Manufacturing Technology Consortium.

INDIANA

Indiana State University, [illegible]

Indiana University, [illegible]

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Purdue University, $3.557 million to be shared with 22 other universities, from the Agriculture Department for urban gardening programs; $2.8 million to be shared with five other universities, from the Energy Department for the Midwest Superconductivity Consortium; $2.5 million to be shared with 17 other universities, from the Energy Department for the Midwest Plant Biotechnology Consortium; $368,000 to be shared with the Ohio State University, from the Agriculture Department for research on world food systems.

University of Notre Dame, $2.8 million to be shared with five other universities, from the Energy Department for the Midwest Superconductivity Consortium.

IOWA

Eastern Iowa Community College District, $2 million to be shared with 11 other colleges, from the Defense Department for the Community College Association for Technology Transfer; $2 million to be shared with Black Hawk College, Western Illinois University, the U.S. Army, and a local economic development group, from the Defense Department for the Moline, Ill., Manufacturing Technology Consortium.

Indian Hills Community College, $400,000 from the Department of Housing and Urban Development for an economic development project.

Iowa State University, $2.8 million to be shared with five other universities, from the Energy Department for the Midwest Superconductivity Consortium; $2.765 million from the Commerce Department for a new materials center; $2.5 million to be shared with 17 other universities, from the Energy Department for the Midwest Plant Biotechnology Consortium; $2 million to be shared with the University of Iowa and the City of Cedar Rapids, from the Agriculture Department for a biotechnology consortium; $1.942 million to be shared with Kansas State University and the University of Arkansas, from the Agriculture Department for a food-safety consortium; $750,000 to be shared with the University of Missouri, from the Agriculture Department for the Food and Agriculture Policy Institute; $700,000 from the Agriculture Department for research on Midwestern agricultural products; $500,000 to be shared with eight other universities and a private company, from the Agriculture Department for research on crambe and winter rapeseed; $500,000 from the Agriculture Department for research on human nutrition; $328,000 from the Agriculture Department for research on soybean bioprocessing; $237,000 from the Agriculture Department for research on beef fat content; $237,000 from the Agriculture Department for research on food irradiation; $210,000 to be shared with four other universities, from the Agriculture Department for research on beef-carcass evaluation and identification.

North Iowa Area Community College, $2 million to be shared with 11 other colleges, from the Defense Department for the Community College Association for Technology Transfer.

University of Iowa, $2.5 million to be shared with 17 other universities, from the Energy Department for the Midwest Plant Biotechnology Consortium; $2 million to be shared with Iowa State University and the City of Cedar Rapids, from the Agriculture Department for a biotechnology consortium; $21,524 from the Commerce Department for a flood warning system.

University of Northern Iowa, $750,000 from the Defense Department for research, development, and other programs. Congress instructed the department to conduct a merit review of the earmark and to award as much of the amount that was set aside for the programs as it deems appropriate; $700,000 from the Environmental Protection Agency to develop technology for recycling at the Iowa Waste Reduction Center.

KANSAS

Kansas State University, $2.5 million to be shared with 17 other universities, from the Energy Department for the Midwest Plant Biotechnology Consortium; $1.942 million to be shared with Iowa State University and the University of Arkansas, from the Agriculture Department for a food-safety consortium; $1.353 million from the Agriculture Department for the Throckmorton Plant Science Center; $500,000 to be shared with eight other universities and a private company, from the Agriculture Department for research on crambe and winter rapeseed; $159,000 from the Agriculture Department for genetic research on wheat; $125,000 from the Agriculture Department for alfalfa research; $100,000 from the Agriculture Department for research on canola; $100,000 to be shared with Oklahoma State University, from the Agriculture Department for a Great Plains agricultural policy center; $94,000 from the Agriculture Department for research on water conservation.

University of Kansas, $500,000 from the Small Business Administration for a small-business incubator program.

KENTUCKY

Hazard Community College, $750,000 from the Small Business Administration to help design and build a technical assistance facility for business and industry.

Owensboro Community College, $350,000 from the Government Printing Office for the college's Distance Learning Center to help the GPO conduct a feasibility study of enhancing public access to federal electronic information.

University of Kentucky, $4.185 million from the Small Business Administration for the Advanced Science and Technology Commercialization Center; $3.557 million to be shared with 22 other universities, from the Agriculture Department for urban-gardening programs; $227,000 from the Agriculture Department for research on export development.

LOUISIANA

Louisiana State University, $10 million from the Energy Department for the Center for Energy and Environmental Resources; $4 million from the Defense Department for "programs of major importance to the department"; $3.557 million to be shared with 22 other universities, from the Agriculture Department for urban gardening programs; $800,000 from the Agriculture Department for research on human nutrition; $380,000 from the Agriculture Department for research on aquaculture.

Loyola University, $5 million to be shared with the City of New Orleans, from the Department of Housing and Urban Development to provide job training and education programs to residents of public housing.

Southern University, $1.925 million from the Transportation Department for an aerospace technology center.

Tulane University, $3 million to be shared with Xavier University of Louisiana, from the Defense Department for research on bioenvironmental hazards.

University of New Orleans, $700,000 from the Environmental Protection Agency for research on urban waste management.

Xavier University of Louisiana, $4 million to be shared with seven other institutions, from the Environmental Protection Agency for the Association of Minority Health Professions Schools; $3 million to be shared with Tulane University, from the Defense Department for research on bioenvironmental hazards.

MAINE

Maine Maritime Academy, $16 million from the Maritime Administration to convert an old Navy ship into a training vessel.

University of Maine, $1.878 million from the Commerce Department for a marine-research program; $1 million from the Environmental Protection Agency for the Maine Quaternary Studies Institute; $776,000 from the Agriculture Department for construction at the Presque Isle Farm; $221,000 from the Agriculture Department for a center on product development and marketing; $185,000 from the Agriculture Department for research on low-bush blueberries.

MARYLAND

Johns Hopkins University, $15 million from the Defense Department for research, development, and other programs. Congress instructed the department to conduct a merit review of the earmark and to award as much of the amount that was set aside for the programs as it deems appropriate.

University of Maryland, $12.5 million from the Environmental Protection Agency for the Christopher Columbus Center of Marine Research and Exploration; $7.5 million from the Defense Department for "programs of major importance to the department"; $3.557 million to be shared with 22 other universities, from the Agriculture Department for urban gardening programs; $862,000 from the Agriculture Department for the Institute for Natural Resources and Environmental Science; $471,877 from the Commerce Department for a cooperative institute on climate studies; $437,000 from the Agriculture Department for research on Chesapeake Bay aquaculture; $393,600 from the Commerce Department for a hydro-climate project; $159,073 from the Commerce Department for an unidentified colloquium.

University of Maryland at College Park, $62 million from the National Aeronautics and Space Administration, $5 million from the Defense Department, $4 million from the Environmental Protection Agency, and $2 million from the White House Office of Science and Technology Policy, all to be shared with the 5 other universities and the private research institute that make up the Consortium for International Earth Science Information Network for the work of the consortium. Of the NASA money, $42 million is for a building in Saginaw, Mich.

MASSACHUSETTS

Clark University, $1.395 million to be shared with four other higher-education institutions, two other institutions, and three companies, from the Commerce Department for a joint incubator facility and science and business center.

College of the Holy Cross, $1.395 million to be shared with four other higher-education institutions, two other institutions, and three companies, from the Commerce Department for a joint incubator facility and science and business center.

Northeastern University, $9 million from the Defense Department for "programs of major importance to the department."

Tufts University, $3.2 million from the Environmental Protection Agency for the Center for Environmental Management; $1.395 million to be shared with four other higher-education institutions, two other institutions, and three companies, from the Commerce Department for a joint incubator facility and science and business center.

University of Massachusetts, $3.557 million to be shared with 22 other universities, from the Agriculture Department for urban gardening programs; $256,000 from the Agriculture Department for research on biotechnology.

University of Massachusetts at Amherst, $465,000 from the Small Business Administration for a demonstration project to help small businesses comply with the Clean Air Act; $465,000 from the Small Business Administration for the Center for Manufacturing Productivity; $261,000 from the Agriculture Department for research on agricultural management systems.

Worcester Polytechnic Institute, $1.395 million to be shared with four other higher-education institutions, two other institutions, and three companies, from the Commerce Department for a joint incubator facility and science and business center.

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Worcester State College, $1.395-million to be shared with four other higher education institutions, two other institutions, and three companies, from the Commerce Department for a joint incubator facility and science and business center.

MICHIGAN

Delta College, $4-million from the National Aeronautics and Space Administration for building, equipping, and furnishing the science learning center and planetarium.

Eastern Michigan University, $500,000 to be shared with eight other universities and a private company, from the Agriculture Department for research on crambe and winter rapeseed.

Grand Rapids Community College, $2-million to be shared with 11 other colleges, from the Defense Department for the Community College Association for Technology Transfer.

Jackson Community College, $2-million to be shared with 11 other colleges, from the Defense Department for the Community College Association for Technology Transfer.

Michigan State University, $62-million from the National Aeronautics and Space Administration, $5-million from the Defense Department, $4-million from the Environmental Protection Agency, $2-million from the White House Office of Science and Technology Policy, all to be shared with the 5 other universities and the private research institute that make up the Consortium for International Earth Science Information Network, for the work of the consortium. Of the NASA money, $42-million is for a building in Saginaw, Mich. Also for Michigan State: $4.616-million from the Agriculture Department for the Food Toxicology Center; $3.557-million to be shared with 22 other universities, from the Agriculture Department for urban-gardening programs; $2.5-million to be shared with 17 other universities, from the Energy Department for the Midwest Plant Biotechnology Consortium; $2.358-million from the Agriculture Department for a research institute; at least $890,000 from the Agriculture Department for research on using wood; $531,000 from the Agriculture Department for subirrigation research; $300,000 from the Department of Housing and Urban Development to continue an urban extension program; $283,000 from the Agriculture Department for research on fruit with stones; $189,000 from the Agriculture Department for research on beans and beets; $120,000 from the Agriculture Department for research on the disposal of animal waste; $94,000 from the Agriculture Department for research on apple quality; $94,000 from the Agriculture Department for research on decline in the yield of asparagus; $39,000 from the Agriculture Department for research on celery fusarium.

Saginaw Valley State University, $62-million from the National Aeronautics and Space Administration, $5-million from the Defense Department, $4-million from the Environmental Protection Agency, and $2-million from the White House Office of Science and Technology Policy, all to be shared with the five other universities and the private research institute that make up the Consortium for International Earth Science Information Network for the work of the consortium. Of the NASA money, $42-million is for a building in Saginaw, Mich.

University of Detroit-Mercy, $1.2-million from the Environmental Protection Agency for the Center for Polymer Research and Environmental Study.

University of Michigan, $62-million from the National Aeronautics and Space Administration, $5-million from the Defense Department, $4-million from the Environmental Protection Agency, and $2-million from the White House Office of Science and Technology Policy, all to be shared with the five other universities and the private research institute that make up the Consortium for International Earth Science Information Network for the work of the consortium. Of the NASA money, $42-million is for a building in Saginaw, Mich. Also for Michigan: $2.5-million to be shared with 17 other universities, from the Energy Department for the Midwest Plant Biotechnology Consortium; $500,000 from the Defense Department for "programs of major importance to the department"; $485,000 from the Energy Department for robotics research.

MINNESOTA

Minnesota State Board of Technical Colleges, $2-million from the Federal Aviation Administration for the Mid-American Aviation Resource Consortium for a training program for air-traffic controllers.

Southwest State University, $255,000 to be shared with the University of Minnesota, from the Agriculture Department for the Youth-at-Risk Program.

University of Minnesota, $2.5-million to be shared with 17 other universities, from the Energy Department for the Midwest Plant Biotechnology Consortium; $2-million from the Defense Department for "programs of major importance to the department"; $760,000 from the Transportation Department for research on "intelligent" vehicles and highway systems; $255,000 to be shared with Southwest State University, from the Agriculture Department for the Youth-at-Risk Program; $230,000 from the Agriculture Department for research on low-input agriculture; $200,000 to be shared with North Dakota State University, from the Agriculture Department for research on the Red River Corridor; $140,000 from the Agriculture Department for swine research; $88,000 from the Agriculture Department for research on wild rice.

University of Saint Thomas, $15-million from the Defense Department for research, development, and other programs. Congress instructed the department to conduct a merit review of the earmark and to award as much of the amount that was set aside for the programs as it deems appropriate.

MISSISSIPPI

Mississippi Community College Foundation, $2-million to be shared with Mississippi State University, from the Agriculture Department for education on rural health and safety.

Mississippi State University, $2-million to be shared with the Mississippi Community College Foundation, from the Agriculture Department for education on rural health and safety; $931,000 from the Agriculture Department for an aquaculture research center; $897,458 from the Agriculture Department for research on using wood; $700,000 from the Agriculture Department for research on aquaculture; $361,000 from the Agriculture Department for research on seafood and aquaculture harvesting, processing, and marketing; $275,000 from the Agriculture Department for research on alternative marine and fresh-water species; $175,000 from the Agriculture Department for research on Delta rural revitalization; $75,000 from the Agriculture Department for research on agribusiness management.

University of Mississippi, $1-million from the Navy for the National Center for Physical Acoustics for equipment and research and development; $204,000, beyond the scope of an existing award, from the Agriculture Department for the Food Service Management Institute; $86,000 from the Agriculture Department for the Biological Technology Center for Water and Wetlands Resources.

University of Southern Mississippi, $668,000 to be shared with five other universities, from the Agriculture Department for research on guayule, a Southwestern shrub.

MISSOURI

University of Missouri, $3.557-million to be shared with 22 other universities, from the Agriculture Department for urban-gardening programs; $2.8-million to be shared with five other universities, from the Energy Department for the Midwest Superconductivity Consortium; $2.5-million to be shared with 17 other universities, from the Energy Department for the Midwest Plant Biotechnology Consortium; $750,000 to be shared with Iowa State University, from the Agriculture Department for the Food and Agriculture Policy Institute; $692,000 to be shared with the University of Arkansas and the University of Nebraska, from the Agriculture Department for a rural policies institute; $500,000 to be shared with eight other universities and a private company, from the Agriculture Department for research on crambe and winter rapeseed; $359,000 from the Agriculture Department for research on the soybean cyst nematode; $348,000 to be shared with Texas A&M University, from the Agriculture Department for research on the regional implications of farm programs.

University of Missouri at Columbia, $50,000 from the Agriculture Department for biodiesel research.

Washington University, $2.5-million to be shared with 17 other universities, from the Energy Department for the Midwest Plant Biotechnology Consortium.

MONTANA

Montana College of Mineral Science and Technology, $2.5-million from the Environmental Protection Agency for the Mine Waste Pilot Program.

Montana State University, $915,000 from the Agriculture Department for the Bioscience Research Laboratory; $250,000 to be shared with four other universities, from the Agriculture Department for research on wheat disease; $250,000 to be shared with North Dakota State University, from the Agriculture Department for safflower research.

NEBRASKA

University of Nebraska, $2.5-million to be shared with 17 other universities, from the Energy Department for the Midwest Plant Biotechnology Consortium; $900,000 from the Department of Housing and Urban Development for renovating and equipping a network for rural health education; $692,000 to be shared with the University of Arkansas and the University of Missouri, from the Agriculture Department for a rural policies institute; $500,000 to be shared with eight other universities and a private company, from the Agriculture Department for research on crambe and winter rapeseed; $430,000 from the Commerce Department for a regional climate center; $110,000 from the Agriculture Department for research on non-food agricultural products; $80,000 from the Agriculture Department for research on rural housing needs; $70,000 from the Agriculture Department for research on sustainable agriculture systems; $50,000 from the Agriculture Department for a food-processing center.

University of Nebraska at Lincoln, $400,000 from the National Aeronautics and Space Administration to expand the NASA Teacher Resource Center; $400,000 from the National Aeronautics and Space Administration for earth-science research and analysis; $196,000 from the Interior Department for Platte River wetland studies.

NEVADA

University of Nevada, $1.85-million from the Environmental Protection Agency for tests on air pollution; $487,020 from the Commerce Department for research on atmospheric modification; $200,000 from the Agriculture Department for research on water conservation.

University of Nevada at Las Vegas, $3.7-million to be shared with the University of Nevada at Reno and a private research institute, from the Energy Department for infrastructure studies and other research and development related to nuclear waste; at least $750,000 from the Energy Department for the Mobile Sampling Platform operated by the Environmental Research Center.

University of Nevada at Reno, $3.7-million to be shared with the University of Nevada at Las Vegas and a private research institute, from the Energy Department for infrastructure studies and other research and development related to nuclear waste; $1.041-million from the Interior Department for a biodiversity initiative; $215,000 from the Agriculture Department for a biochemistry and biology facility; $22,507 from the Commerce Department for atmospheric research.

NEW HAMPSHIRE

New Hampshire College, $1-million from the Department of Housing and Urban Development to develop a technology center on business information.

University of New Hampshire, $15-million from the Commerce Department for construction of a marine biological sciences building; $50,000 to be shared with the University of Vermont, from the Agriculture Department for research on forestry marketing.

construction of a marine biological sciences building; $50,000 to be shared with the University of Vermont, from the Agriculture Department for research on forestry marketing.

NEW JERSEY

New Jersey Institute of Technology, $2 million from the Environmental Protection Agency for an initiative on integrated pollution prevention; $300,000 from the Department of Housing and Urban Development to continue testing affordable housing technologies.

Rutgers University, $6.6-million from the Defense Department for research on combat rations; $1.557-million to be shared with 22 other universities, from the Agriculture Department for urban-gardening programs; $3-million from the Transportation Department for the National Transit Institute; $2.623-million from the Agriculture Department for the Plant Bioscience Facility; $1.249-million from the Commerce Department for an undersea research center; $260,000 from the Agriculture Department for research on cranberry and blueberry disease and breeding.

NEW MEXICO

New Mexico State University, $2-million to be shared with three other universities, from the Environmental Protection Agency for the Southwest Environmental Research Center; $668,000 to be shared with five other universities, from the Agriculture Department for research on guayule, a Southwestern shrub; $400,000 to be shared with three other universities and a national laboratory, from the Agriculture Department for the Southwest consortium for plant genetics and water resources; $400,000 to be shared with the University of New Mexico, the state highway department, and two national laboratories, from the Transportation Department for a study on regional transportation needs; $200,000 from the Agriculture Department for research on broom snakeweed; $200,000 from the Agriculture Department for research on jojoba oil; $150,000 from the Agriculture Department for research on genetic engineering for nematode resistance; $150,000 from the Agriculture Department for research on phytophthora root rot.

University of New Mexico, $400,000 to be shared with New Mexico State University, the state highway department, and two national laboratories, from the Transportation Department for a study on regional transportation needs.

NEW YORK

Canisius College, $150,000 from the Small Business Administration for the Center for Entrepreneurship.

Columbia University, $10-million from the Environmental Protection Agency for a research center on environmental health sciences.

Cornell University, $3.557-million to be shared with 22 other universities, from the Agriculture Department for urban-gardening programs; $735,000 from the Agriculture Department for research on human nutrition; $575,000 from the Agriculture Department for environmental research; $525,000 to be shared with Texas A&M University, from the Agriculture Department for research on livestock and dairy policy; $430,000 from the Commerce Department for a Northeast regional climate center; $375,000 from the Agriculture Department for the Cornell Research Greenhouse; $210,000 to be shared with four other universities, from the Agriculture Department for research on beef-carcass evaluation and identification.

Dowling College, $4.5-million from the Transportation Department for the National Aviation and Transportation Center.

New York Medical College, $2-million from the Department of Housing and Urban Development to improve health-care delivery in New York.

Polytechnic University, $62-million from the National Aeronautics and Space Administration, $5-million from the Defense Department, $4-million from the Environmental Protection Agency, and $2-million from the White House Office of Science and Technology Policy, all to be shared with the five other universities and the private research institute that make up the Consortium for International Earth Science Information Network for the work of the consortium. Of the NASA money, $42-million is for a building in Saginaw, Mich.

Rensselaer Polytechnic Institute, $500,000 from the Environmental Protection Agency for a program on Adirondack destruction assessment.

Roberts Wesleyan College, $2-million from the Department of Housing and Urban Development for the Community Development Resource Center.

Rochester Institute of Technology, $1-million from the Defense Department for "programs of major importance to the department."

NORTH CAROLINA

North Carolina State University, $7.336-million to be shared with three other universities, from the Department of Commerce for the National Textile Center University Research Consortium; $278,000 to be shared with Clemson University and the University of Georgia, from the Agriculture Department for research on alternative cropping systems; $137,000 to be shared with the University of Georgia and the University of Tennessee, from the Agriculture Department for research on dogwood anthracnose.

University of North Carolina at Wilmington, $829,169 from the Commerce Department for an undersea-research center.

Wake Forest University, $1.684-million from the Agriculture Department for the Bowman-Gray Center.

NORTH DAKOTA

Minot State University, $1.939 million from the Agriculture Department for the Institute for Agriculture and Rural Human Research Development.

North Dakota State University, $2.5-million to be shared with 17 other universities, from the Energy Department for the Midwest Plant Biotechnology Consortium; $700,000 from the Agriculture Department for research on alternative crops; $500,000 from the Agriculture Department for research on weed control; $500,000 to be shared with eight other universities and a private company, from the Agriculture Department for research on crambe and winter rapeseed; $431,000 from the Agriculture Department for the Seed Research and Regulatory Facility; $375,000 from the Agriculture Department for the Northern Crops Institute; $350,000 from the Agriculture Department for research on agricultural trade; $250,000 from the Agriculture Department for research on using potatoes; $250,000 to be shared with Montana State University, from the Agriculture Department for safflower research; $200,000 to be shared with the University of Minnesota, from the Agriculture Department for research on the Red River Corridor; $200,000 to be shared with South Dakota State University, from the Agriculture Department for research on sunflower insects; $100,000 from the Agriculture Department for research on dried beans; $75,000 from the Agriculture Department for research on grasshopper biocontrol.

University of North Dakota, $2 million from the Transportation Department for the Distance Learning Project; $1.864-million from the Agriculture Department for the Institute for Agricultural Health Science and Rural Medicine; $1.6-million from the Environmental Protection Agency for the Energy and Environmental Research Center to develop technologies to measure and control toxic metal emissions; $225,000 from the Transportation Department to upgrade and expand the laboratory on air traffic control.

OHIO

John Carroll University, $3.5-million from the Defense Department for research, development, and other programs. Congress instructed the department to conduct a merit review of the earmark and to award as much of the amount that was set aside for the programs as it deems appropriate.

Medical College of Ohio, $1-million from the Defense Department for "programs of major importance to the department."

Ohio State University, $1.557-million to be shared with 22 other universities, from the Agriculture Department for urban-gardening programs; $2.8-million to be shared with five other universities, from the Energy Department for the Midwest Superconductivity Consortium; $2.5-million to be shared with 17 other universities, from the Energy Department for the Midwest Plant Biotechnology Consortium; $368,000 to be shared with Purdue University, from the Agriculture Department for research on oat fluid systems; $140,000 from the Agriculture Department for research on new uses for agricultural products; $55,000 from the Agriculture Department for research on white mold.

Ohio University, $500,000 from the Defense Department for the Coalition for International Environmental Research and Assistance.

University of Toledo, $240,000 from the Agriculture Department for soil and water research; $217,000 from the Agriculture Department for the Plant Science Research Facility.

OKLAHOMA

Oklahoma State University, $117,000 from the Agriculture Department for research on expanded wheat pasture; $267,000 from the Agriculture Department for research on preservation and processing; $190,000 from the Agriculture Department for research on integrated production systems; $100,000 to be shared with Kansas State University, from the Agriculture Department for a Great Plains agricultural policy center.

University of Oklahoma, $148,000 from the Energy Department to participate in the Gypsy Field Project; $148,000 from the Energy Department for a study on the use of liquefied natural gas as a transportation fuel for heavy trucks.

OREGON

Oregon Graduate Institute, $1.5-million from the Navy for welding research; $1-million from the Defense Department for the National Center of Excellence for Display Technology.

Oregon Health Sciences University, $10-million from the Department of Energy for the Ambulatory Research and Education Building.

Oregon State University, $4.5-million from the National Aeronautics and Space Administration for computer network infrastructure for advanced technology research and education projects; $1.824-million from the Agriculture Department for the Seafood Center; $1.8-million from the Commerce Department for the Newport Marine Science Center; $900,000 to be shared with the University of Idaho and Washington State University, from the Agriculture Department for research on water quality in the Northwest; $897,458 for research on using wood; $500,000 from the National Aeronautics and Space Administration for distance learning activities at the Marine Science Center; $437,000 to be shared with the University of California at Berkeley and Washington State University, from the Agriculture Department for research on the Russian wheat aphid; $340,000 to be shared with the University of Rhode Island, from the Agriculture Department for research on fish marketing; $327,000 from the Agriculture Department for seafood research; $300,000 from the Agriculture Department for multicommodity research; $250,000 from the Environmental Protection Agency for the Center for the Analysis of Environmental Change; $250,000 to be shared with four other universities, from the Agriculture Department for research on wheat disease.

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$225,000 from the Agriculture Department for research on an alternative to the herbicide Dinoseb; $187,000 to be shared with the University of Idaho and Washington State University, from the Agriculture Department for research on small fruit; $93,700 from the Commerce Department for research on salmonid ecology; $85,000 from the Agriculture Department for research on Eastern filbert blight.

PENNSYLVANIA

Hahnemann University, $10-million from the Energy Department for the [illegible] Care and Teaching facility.

Lackawanna Junior College, $1.8-million from the Department of Housing and Urban Development to establish the [illegible] Career Prep and Distance Learning Center for low-income and public housing residents.

Mount Aloysius College, $2-million from the U.S. Army for a nursing demonstration project.

Pennsylvania State University, $5-million to expand the scope of an existing center, from the Defense Department for the Applied Research Laboratory for the National Center for Advanced Gear Manufacturing Technology; $3.557-million to be shared with 22 other universities, from the Agriculture Department for urban gardening programs; $335,000 from the Agriculture Department for research on improving dairy management; $280,000 from the Agriculture Department for research on controlled environment production systems; $184,000 from the Agriculture Department for research on milk safety; $134,000 from the Agriculture Department for the center for animal health and productivity; $100,000 from the Agriculture Department for research on sustainable agriculture and natural resources.

Saint Francis College, $1-million from the Defense Department for a demonstration program on physician assistants; $800,000 to be shared with Saint Vincent College, from the Small Business Administration to establish a Center for Global Competitiveness.

Saint Joseph's University, $2.336-million from the Agriculture Department for the Center for Food Marketing.

Saint Vincent College, $800,000 to be shared with Saint Francis College, from the Small Business Administration to establish a Center for Global Competitiveness.

Seton Hill College, $930,000 from the Small Business Administration for a center for entrepreneurial opportunity for women.

University of Pennsylvania, $7.5-million from the Defense Department for "programs of major importance to the department"; $134,000 from the Agriculture Department for the College of Veterinary Medicine for research on feedstock for dairy cows.

University of Pittsburgh, $10-million from the Navy for the National Center of Excellence for Metalworking Technology; $15-million from the U.S. Army for the National Defense Center for Environmental Excellence; $5-million from the U.S. Army for research at the National Defense Center for Environmental Excellence. The two centers are operated by a subsidiary of the University of Pittsburgh Trust.

University of Scranton, $7.5-million to be shared with a private institute, from the Air Force for the Northeast Regional Cancer Institute; $3.5-million from the Defense Department for "programs of major importance to the department."

Villanova University, $2-million from the Defense Department for "programs of major importance to the department."

RHODE ISLAND

Bryant College, $2-million from the Defense Department for "programs of major importance to the department."

University of Rhode Island, $411,000 from the Agriculture Department for building consolidation for the Coastal Institute; $340,000 to be shared with Oregon State University, from the Agriculture Department for research on fish marketing.

SOUTH CAROLINA

Clemson University, $7.336-million to be shared with three other universities, from the Department of Commerce for the National Textile Center University Research Consortium; $270,000 to be shared with North Carolina State University and the University of Georgia, from the Agriculture Department for research on alternative cropping systems; $192,000 from the Agriculture Department for research on peach trees; $125,000 from the Agriculture Department for research on pest-control alternatives.

University of South Carolina, $473,515 from the Commerce Department for research on estuarine management.

SOUTH DAKOTA

South Dakota State University, $2.5-million to be shared with 17 other universities, from the Energy Department for the Midwest Plant Biotechnology Consortium; $875,000 from the Agriculture Department for the Northern Plains Biostress Laboratory; $200,000 to be shared with North Dakota State University, from the Agriculture Department for research on sunflower insects.

TENNESSEE

East Tennessee State University, $2.8-million to be shared with one of the medical centers of the Department of Veterans Affairs, from that department for relocating the university's medical school and renovating buildings at the medical center.

Meharry Medical College, $4-million to be shared with seven other institutions, from the Environmental Protection Agency for the Association of Minority Health Professions Schools.

Middle Tennessee State University, $336,000 from the Transportation Department for construction for the airway science program.

Tennessee State University, $367,000 from the Agriculture Department for the Nursery Crop Research Station.

University of Tennessee, $3.557-million to be shared with 22 other universities, from the Agriculture Department for urban gardening programs; $137,000 to be shared with North Carolina State University and the University of Georgia, from the Agriculture Department for research on dogwood anthracnose.

University of Tennessee at Knoxville, $797,000 from the Agriculture Department for the Biological and Environmental Research Complex; $485,000 from the Energy Department for robotics research.

TEXAS

Baylor College of Medicine, $51,975 from the Commerce Department for research on shellfish viruses.

Lamar University, $2.5-million from the Environmental Protection Agency for the Gulf Coast Hazardous Substance Research Center.

Sam Houston State University, $5-million to be shared with Stephen F. Austin State University, from the Defense Department for the Texas Regional Institute for Environmental Studies.

Stephen F. Austin State University, $5-million to be shared with the Sam Houston State University, from the Defense Department for the Texas Regional Institute for Environmental Studies.

Texas A&M University, $3.557-million to be shared with 22 other universities, from the Agriculture Department for urban gardening programs; $668,000 to be shared with five other universities, from the Agriculture Department for research on guayule, a Southwestern shrub; $601,000 from the Agriculture Department for the Institute for Biosciences and Technology; $525,000 to be shared with Cornell University, from the Agriculture Department for research on livestock and dairy policy; $348,000 to be shared with the University of Missouri, from the Agriculture Department for research on the regional implications of farm programs; $250,000 from the Agriculture Department for wool research; $210,000 to be shared with four other universities, from the Agriculture Department for research on beef-carcass evaluation and identification; $75,000 from the Agriculture Department for research on cottonseed extraction and oil refining; $75,000 from the Agriculture Department for research on dairy goats.

Texas A&M University at Galveston, $4-million from the Maritime Administration to convert an old Navy ship into a training vessel.

Texas Southern University, $4-million to be shared with seven other institutions, from the Environmental Protection Agency for the Association of Minority Health Professions Schools.

Texas Tech University, $400,000 to be shared with three other universities and a national laboratory, from the Agriculture Department for the Southwest consortium for plant genetics and water resources.

University of Texas at Austin, $600,000 from the Energy Department for robotics research.

University of Texas at El Paso, $2-million to be shared with three other universities, from the Environmental Protection Agency for the Southwest Environmental Research Center.

UTAH

University of Utah, $10-million from the National Aeronautics and Space Administration for the Intermountain Network and Scientific Computation Center; $5-million from the Environmental Protection Agency for the same center; $2-million to be shared with three other universities, from the Environmental Protection Agency for the Southwest Environmental Research Center.

Utah State University, $62-million from National Aeronautics and Space Administration, $5-million from the Defense Department, $4-million from the Environmental Protection Agency, and $2-million from the White House Office of Science and Technology Policy, all to be shared with the five other universities and the private research institute that make up the Consortium for International Earth Science Information Network for the work of the consortium. Of the NASA money, $42-million is for a building in Saginaw, Mich. Also for Utah State, $650,000 from the Agriculture Department for the Biotechnology Laboratory; $250,000 to be shared with four other universities, from the Agriculture Department for research on wheat disease.

Utah Valley Community College, $500,000 from the Transportation Department to develop an airway-science curriculum.

VERMONT

University of Vermont, $99,000 from the Agriculture Department for maple research; $50,000 to be shared with the University of New Hampshire, from the Agriculture Department for research on forestry marketing; $37,000 from the Agriculture Department for the center for rural studies.

VIRGINIA

George Mason University, $1.6-million from the Transportation Department for research on "intelligent" vehicles and highway systems.

University of Virginia, $60,000 from the Commerce Department for a study of ocean inlets.

Virginia Polytechnic Institute and State University, $880,000 from the Agriculture Department for the Agriculture Biotechnology Facility; $25,000 from the Agriculture Department for research on procerum root disease.

WASHINGTON

Central Washington University, $175,000 from the Transportation Department for design and engineering work for the airway science program.

Eastern Washington University, $15-million to be shared with four other institutions, from the Defense Department for the Spokane Intercollegiate Research and Technology Institute.

Gonzaga University, $15-million to be shared with four other institutions, from the Defense Department for the Spokane Intercollegiate Research and Technology Institute.

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Spokane Community College, $15-million to be shared with four universities, from the Defense Department for the Spokane Intercollegiate Research and Technology Institute.

University of Washington, $1.275-million from the Forest Service for the Olympic Natural Resources Center.

Washington State University, $15-million to be shared with four other institutions, from the Defense Department for the Spokane Intercollegiate Research and Technology Institute; $8-million from the Energy Department for the Center for Advanced Industrial Process; $3.557-million to be shared with 22 other universities, from the Agriculture Department for urban-gardening programs; $2.258-million from the Agriculture Department for the Animal Disease Biotechnology Facility; $980,000 to be shared with Oregon State University and the University of Idaho, from the Agriculture Department for research on water quality in the Northwest; $680,000 from the Agriculture Department for research on the competitiveness of agricultural products; $667,000 from the Agriculture Department for pesticide research; $500,000 directed to the Washington State University Research Foundation, from the Small Business Administration to help build a business-incubator facility; $417,000 to be shared with Oregon State University and the University of California at Berkeley, from the Agriculture Department for research on the Russian wheat aphid; $387,000 to be shared with the University of Idaho, from the Agriculture Department for research on cool-season legumes; $250,000 to be shared with four other universities, from the Agriculture Department for research on wheat disease; $200,000 from the Department of Housing and Urban Development for the affordable-housing program; $187,000 to be shared with Oregon State University and the University of Idaho, from the Agriculture Department for research on small fruit.

Whitworth College, $15-million to be shared with four other institutions, from the Defense Department for the Spokane Intercollegiate Research and Technology Institute.

WEST VIRGINIA

Marshall University, $4-million from the Defense Department for the Advanced Flexible Manufacturing Institute.

West Virginia University, $1.765-million beyond the scope of an existing award, from the Interior Department for the National Water Information Clearinghouse; $1.5-million from the Energy Department for the National Research Center for Coal and Energy; $1-million from the Department of Veterans Affairs for a demonstration project at Ruby Memorial Hospital; $1-million from the Environmental Protection Agency for the EPA National Training Center; $1-million from the Environmental Protection Agency for the Small Flows Clearinghouse; $700,000 from the Interior Department for the Institute for the History of Technology and Industrial Archaeology; $200,000 from the Forest Service for research on timber bridges.

Wheeling Jesuit College, $2.8-million from the National Aeronautics and Space Administration for the Classroom of the Future; $1.5-million from the Navy for the National Technology Transfer Center to train the personnel of Navy laboratories in technology transfer.

WISCONSIN

Marquette University, $650,000 from the Department of Housing and Urban Development for a demonstration program on university neighborhood crime intervention.

Medical College of Wisconsin, $15-million from the Defense Department for research, development, and other programs. Congress instructed the department to conduct a merit review of the earmark and to award as much of the amount that was set aside for the programs as it deems appropriate.

Northcentral Technical College, $2-million to be shared with 11 other colleges, from the Defense Department for the Community College Association for Technology Transfer.

Saint Norbert College, $1.9-million from the Defense Department for research, development, and other programs. Congress instructed the department to conduct a merit review of the earmark and to award as much of the amount that was set aside for the programs as it deems appropriate.

University of Wisconsin, $15-million from the Defense Department for research, development, and other programs. Congress instructed the department to conduct a merit review of the earmark and to award as much of the amount that was set aside for the programs as it deems appropriate; $3.557-million to be shared with 22 other universities, from the Agriculture Department for urban-gardening programs; $3.35-million from the Department of Health and Human Services for research at the Institute for Research on Poverty; $2.5-million to be shared with 17 other universities, from the Energy Department for the Midwest Plant Biotechnology Consortium; $261,000 from the Agriculture Department for the research group on food systems; $225,000 from the Commerce Department for satellite meteorology; $75,000 from the Agriculture Department for the Babcock Institute; $75,000 from the Agriculture Department for cranberries.

University of Wisconsin at Madison, $2.161-million from the Agriculture Department for a facility for agriculture biotechnology and genetics.

University of Wisconsin at Stevens Point, $86,000 from the Agriculture Department for the College of Natural Resources.

Western Wisconsin Technical College, $2-million to be shared with 11 other colleges, from the Defense Department for the Community College Association for Technology Transfer.

WYOMING

University of Wyoming, $411,000 from the Agriculture Department for the Environmental Simulation Facility.

GUAM

Guam Community College, $191,000 to be shared with the University of Guam from the Education Department for partial reimbursement for grants and loans to Micronesian students who are not residents of Guam.

University of Guam, $191,000 to be shared with Guam Community College, from the Education Department for partial reimbursement for grants and loans to Micronesian students who are not residents of Guam.

PUERTO RICO

University of Puerto Rico, $19,963 from the Commerce Department for research on the coastal zone.

VIRGIN ISLANDS

University of the Virgin Islands, $1.5-million from the Interior Department for repairs and reconstruction.

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The CHAIRMAN. Thank you very much, Mr. Schlossberg, and, without objection, the article that you referred to in the Chronicle of Higher Education will be included with your remarks.

You have given us a very judicious and well balanced defense of earmarking, and we appreciate that very much.

We will go now to Mr. Wyatt.

I would give you a long and glowing introduction, but I'll insert it in the record later, if it is okay with you.

Mr. WYATT. Thank you, Mr. Chairman. I would really appreciate that, and after what I am about to say, it might be helpful to have it in there.

I have also submitted a written report and would like to have that full report made a part of the record.

The CHAIRMAN. Without objection, the full content of your remarks and any additional material you might wish to insert will be made a part of the record.

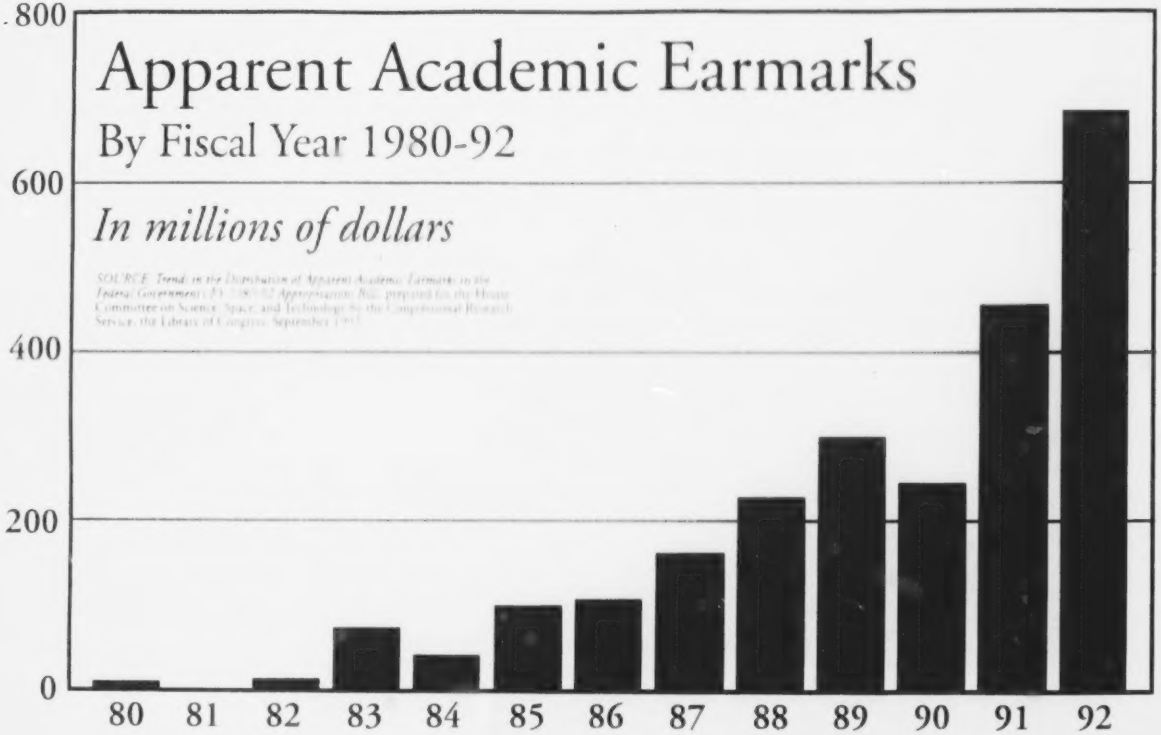
Mr. WYATT. Thank you, Mr. Chairman.

Let me say as well how much I appreciate your relentless pursuit of sound principle in the allocation of this country's scarce resources for science research and research facilities. I know you have served with distinction in this Congress for about 30 years. I have been associated with your service here for 20, and there is no one that has done more for the science and technology research than you have. I might add that, on this issue, I know that you have a lot of support on the notion of curbing earmarking from many other Members of Congress with whom I have worked, so I am encouraged.

I am Chancellor of Vanderbilt University. I am here today in support of our Nation's investment in scientific research. I am the CEO of an American Research University, and I want to tell you that I believe the United States is yielding control of its research budget to special interests bit by bit, piece by piece, but now very substantively.

I would like to take a few minutes to put this crisis in a context that I think everyone will recognize and in plain talk. I have brought a chart I think that will demonstrate more than words the speed with which this crisis has intensified. There it is, right over there.

[The chart follows:]



Apparent Academic Earmarks

By Fiscal Year 1980-92

In millions of dollars

SOURCE: *Trends in the Distribution of Apparent Academic Earmarks in the Federal Government's FY 1980-92 Appropriation Bills*, prepared for the House Committee on Science, Space, and Technology by the Congressional Research Service, the Library of Congress, September 1992.

Mr. WYATT. It starts in 1980, goes to 1992. It is a bit out of date now because there is an even taller bar that should be appended to the right edge for '93 that would go up to $763 million, but I think even from that chart you can see the speed with which this earmarking phenomenon is accelerating. It has grown in the last 12 years from $10 million to, now, $763 million. It is widespread, it is growing rapidly, in virtually all of the Appropriations Committees.

This chart clearly shows that the problem of earmarking didn't exist in any substantive measure a dozen years ago, and I leave it to your imagination to extend that chart out to the right. If we continue the pace at which this is going, we are going to be clearing billions of dollars in a very short time at that rate, and I, for one, don't see anything that can check it based on what I now know.

Let me ask a question of everyone here. How long would you want to be running a business with a trend line showing that critically important funds are being spent in ways unrelated to the general business plan? And how many times would you want to show a chart like this to your shareholders and tell them that more and more money is being spent without any reference to the business plan authorized by the management of the company, and that the company, almost in bankruptcy, is borrowing most of the money to spend this way? I don't think that would be a story that would please many of the shareholders of a business, and I don't think it should please the citizens of this country.

We are talking here about our country's future. Our national interests are linked directly to scientific advancement in defense, in agriculture, in commerce. Our competitive standing relative to the industrial nations depends on continuing, in some cases recovering, the scientific leadership America has exercised throughout the post-World War II era.

No one seriously questions whether scientific research is in the national interest. The issue is what process leads to the best scientific research. What this chart shows is that we have a growing process in which the country's research agenda is being determined not by the best science but by the best lobbying that money can buy.

The purpose of this hearing, as I understand it, is to examine the relative merits of allocating federal funds for scientific research by the process of merit review or, alternatively, by congressional earmarking. As you know by now, I am an advocate of merit review because it represents a rational, efficient, and responsible way, consistent with the Congress's obligation to the citizen shareholders you represent, to spend public funds in accordance with a fully debated and rational national plan.

Let me explain, because I think it is important, what I mean by the best science. I do not mean only that research conducted by a clique of self-selecting elites. Important research has been done and continues to be done in every State in the country in private as well as State universities. Nor do I mean by best that which is most readily transferable to commerce and regarded most favorably by business. Nor do I mean what appears to the layperson as most intelligible and best in a common sense understanding.

Some of the most important research breakthroughs have come from projects that would have seemed candidates for the former Senator Proxmire's Golden Fleece Award. In fact, the initial research conducted by Vanderbilt's Dr. Stanley Cohen on why mice are born with their eyes closed might have been dismissed by some as silly. Thirty years later, he was awarded the Nobel Prize because from that simple research idea came Dr. Cohen's discovery of the epidermal growth factor and his subsequent findings on the growth of cancer cells.

By best, I am referring to that science which is judged best by scientists in their respective fields, applying the standards developed within their disciplines. That was the premise of our nation's first science policy upon which the competitive funding programs of NSF and NIH and other agencies were established. The premise is still sound. To find out what science is best, we have to ask the scientists.

Last fall, a number of studies were released by both Government and private organizations on the state of the Nation's scientific and technological research. Among these were reports by the Carnegie Commission, the President's Council of Advisors for Science, and the National Science Foundation. In addition to calling for a comprehensive review of the country's research policy, these studies also call for greater accountability measures to be placed on research. They pointed out that research needs to be held accountable in many ways and that this accountability should be achieved through the merit review process.

Scientists and their projects can be held accountable to the Nation's needs. Those projects and facilities which are more likely to further national interest compared to other projects and facilities deserve greater encouragement because of their linkage with a national priority. Those needs and interests should be determined by a comprehensive review of national science policy.

Earmarking, on the other hand, subverts the goals set by policy through haphazard spending, the effect of which is also to bloat agency budgets. As an example, consider the Fiscal Year 1989 Budget for the Department of Agriculture. The President's budget request for the Department's science and education agencies contained just one building request totaling $11 million. By the time the budget emerged from the appropriations process, it contained 31 earmarked building projects totaling $28.3 million. To no one's surprise, the location of the earmarked facilities corresponded strongly to the States represented by Members of the Agricultural Appropriations Committee.

As you know, I am sure, agricultural research is an area in which congressional earmarking has been the norm, not the exception. How has the United States done in maintaining its competitive position in agriculture? In a 1989 study released by the National Research Council, it is stated that—and I quote—"United States global competitiveness in agricultural commodities and food products has eroded because of increased cost of production at home and heightened competition from foreign producers in the marketplace."

This study, which is entitled "Investing in Research," suggests that a connection can be made between the growth in academic earmarks and the decline of America's competitive standing in agriculture. The report persuasively makes the case that competitive merit review should be the means of allocating agricultural research funds, and I would urge this Committee to consider that report and also to consider whether the same judgment should not be made with respect to competitiveness in other industries.

Let me emphasize that earmarking is not simply a benign increase in research expenditures as some would have us believe. The Treasury is not over there printing special money to be spent for this. Earmarking is diverting public funds from authorized research programs within agency budgets. According to an OSTP report, $600 million of authorized projects were squeezed out in fiscal year 1993 on account of earmarks.

In effect, earmarks take funds away from projects that have been requested by an agency of Government held responsible to act in the public interest, projects that have been approved by the authorizing committees of the Congress, and they have put those funds in the hands of special interests with no accountability. At a time when we need to be holding more of our research expenditures accountable to national priorities, earmarkers are overruling allocation decisions that have been made on the basis of national policy and priority.

What we need is a rational national plan to invest in research funding. If we need to distribute funds more equitably among geographical regions, let's consider expanding sheltered competitions for funds so that merit review is not sacrificed in the effort to involve developing institutions in research projects. The CRS data indicate—that data actually was used to develop this chart and has been available now for a number of years through the courtesy of this Committee—that data indicates that earmarking does not distribute funds equitably.

The big winners in the scramble for earmarks are many of the same institutions and the same States who already receive the bulk of federal funds through merit review, and if we need to get science to the marketplace more quickly, as I believe we do, let's encourage joint proposals from academic and industrial groups to compete for funds based on rational judgment of quality and take account of that need in a new national science policy, and the new policy should not abandon the research enterprise that brought us to world leadership in science.

I should add at this point, at Vanderbilt University we have not and do not pursue earmarks; we do not plan to accept any earmarks. We also believe that it is time to rethink the Nation's science policy and make some informed public choices about how research can best serve this country's needs in defense, in medicine, in industry, and economic competitiveness. Let this new policy be the guide for our research funding. Let's hold scientists accountable to it through the merit review system.

Finally, I ask you to look at the defenders of earmarks, with all due respect, including those who are testifying before this Committee now and in the future. If you notice, the ones who are satisfied and calling for more are the ones who already have vested interests in maintaining the earmark system. What other response would we expect from them?

I believe the country deserves something better from this hearing. The country deserves to hear a debate on the Nation's interest in research, not after-the-fact defenses for earmarks or rationalizations of particular universities' lobbying fees. It is an understandable consequence that when resources are scarce and funds available only from Congress that institutions would appeal directly to Congress. There are always more research proposals than can be funded, and we need more research facilities than can be afforded. It is also understandable that elected representatives spend funds in ways that will aid their districts. But the Nation's needs are neglected when each institution pursues its own self-interest to the extreme.

One of the biggest dangers of earmarking is that on a large enough scale—and I believe the chart shows that we have reached that scale already—earmarking effectively thwarts any effort to establish national priorities as part of a national policy on research and technology. To the extent that institutions are able to acquire their research funds through lobbying Congress directly, they have very little incentive to contribute to a discussion of what a national science policy would require of our researchers.

Not only is earmarking not accountable to national needs, but research performed with earmarked funds is not readily reviewable by any performance assessment criteria. On the other hand, with an agency-administered competition for funds, there is in place a scientific basis on which to oversee and to report to the country, through the Congress, on what is being accomplished with the funds.

When lobbyists secure research funds directly from Congress, these oversight mechanisms are bypassed, nobody has the responsibility of taking a second look at how the earmarked funds are used, and no assessment procedure can operate to report on the results. In other words, there is no accountability, none, zero.

When I look at this chart and compare it to the rate of growth in research funding over the same years for NSF, NIH, and any of our other agencies responsible for managing the Nation's research investments, I ask myself whether the rules of the game haven't already changed. If this trend continues, it is clear that the rules have changed and that the new rules are that lobbyists, not scientists, are the primary judges of America's research investment.

Ask yourselves what message earmarking sends to today's students and future researchers. Funding research through earmarks says that success in science is measured by how much influence one can buy and which lobbyists one can hire. We are undermining the very standards of academic excellence we are working as a nation to improve in our schools. Is this the way we want to say to our graduate students who do their dissertation research on these projects that we reward good research, that it doesn't matter how good their ideas or how diligent their work, that it only matters whether their university is paying the right lobbyist $50,000 every month?

Shall we give our graduate students a higher grade if they can figure out why paying a lobbyist causes elected officials to award a university research money without reliance on scientific judgment at all? I think not. This is clearly the wrong message. Excessive influence is not a measure of success anywhere but among lobbyists. If we are to salvage the future of American science and education, we need to start sending a different message about how success in research is measured.

Not all earmarks of research funds come as the result of the work of hired lobbyists, I know that, and I expect that the efforts of hired lobbyists to obtain earmarks are not always successful. I am sure that in some cases institutions themselves initiate discussions with lobbyists about earmarks and in other cases lobbyists themselves develop an interest from institutions about the availability of earmarks.

I don't in any sense represent myself as knowing just how the lobbying process works for earmarks because I have never employed a lobbyist for that purpose. In preparing for this hearing, however, I have discovered some facts that I simply want to put before you without trying to draw any conclusion. You may draw your own conclusion.

Gerald Cassidy was scheduled to testify later in this hearing, and his firm is prominent and active with colleges and universities receiving earmarks. According to the CRS data and published lists of Cassidy clients, those clients received over $100 million in academic earmarks in fiscal year 1992. That was one-seventh of the total reported by CRS for that year.

To put that amount in the context that I discussed earlier, let me point out that the amount earmarked for Cassidy clients alone was more than six times the amount that Congress authorized and appropriated for the NSF Competitive Facilities Program for that year, and, according to an analysis of fiscal year 1993, academic earmarks appearing in the Chronicle of Higher Education this week, Cassidy clients received over $170 million, more than a fifth of the total earmarks reported and a 70 percent increase from 1992 to 1993.

It has been reported in the Washington Post that fees charged by the Cassidy firm to its clients range from $10,000 to $50,000 a month, and, according to reports filed with the Federal Election Commission, individuals associated with the Cassidy firm in 1989 and 1990 contributed over $270,000 in kind or cash to candidates for congressional offices, and with further research I believe that total might be found to be significantly larger.

Let me conclude with a key question. Do you want the Nation's research agenda to be determined by the best scientists or the most skillful lobbyists? To me and, I believe, to the other shareholders you represent, the answer is clear. To judge which science is best, we need to apply the standards which have been developed within the various fields of science by their practitioners, we need to have full discussion in the appropriate agencies and in the Congress to measure the research by virtue of our national priorities and our national plan. This is what we do when our research funds are dispersed through the competitive merit review system. It is not what is done when our funds are spent in response to lobbyists skillfully manipulating for earmarks.

I believe we owe it to our children, to the young men and women who are working to become tomorrow's researchers, we owe it to the country, and we owe it to ourselves to do better than this.

Thank you, Mr. Chairman.

[The prepared statement of Mr. Wyatt follows:]

PREPARED STATEMENT
JOE B. WYATT
CHANCELLOR OF VANDERBILT UNIVERSITY
COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY
JUNE 16, 1993

Mr. Chairman, Members of the Committee:

My name is Joe Wyatt, and I am Chancellor of Vanderbilt University. I am here today in support of our nation's investment in scientific research, and I greatly appreciate the opportunity this hearing presents.

As the CEO of an American research university I want to tell you that the United States is yielding control of its research budget to special interests, and that we have a crisis. I want to take a few minutes to try to put this crisis in a context that everyone will recognize.

Scientific research is a service that the Administration and Congress purchase on behalf of the country. In managing the nation's expenditures Congress is like a business. And I know that you understand the fiduciary responsibility business executives bear toward the shareholders, the owners, who in this case are the American people, present and future.

I have brought a chart that will demonstrate more vividly than words the speed with which the crisis has intensified. Here is what the chart shows.

Funding for research projects and facilities purchased not by merit review guided by national priorities, but through Congressional earmarks in the appropriations process, has grown in the last 12 years from $10 million to $707 million.[1]

This chart shows that the problem of earmarking did not exist a dozen years ago. I leave to your imagination the size and shape of the chart that will be needed in just a few years if the earmarking trend is left unchecked.

How long would you want to be running a business with a trend line showing that critically important funds are being spent in ways unrelated to any business plan? And how many times would you want to show a chart like this to your shareholders and tell them that more and more money is being spent without any reference to the business plan authorized by the management of the company?

I understand, though probably not as well as you do, that elected representatives have obligations to their constituents and responsibilities to their districts. Appropriations are one means of fulfilling those obligations. In any business many factors influence purchasing decisions, including considerations like those that lead to congressional earmarks. The difference, however, is that when it comes to research we are talking about the resource on which the economic competitiveness of the United States rests. Scientific research is an investment in our nation's future ability to compete.

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[1] Trends in the Distribution of Apparent Academic Earmarks in the Federal Government 's FY 1992 Appropriations Bills, Prepared for the House Committee on Science, Space, and Technology by the Congressional Research Service, The Library of Congress (September, 1992).

It is one thing to use the appropriations process for political purposes to build infrastructure by bringing public funding to bear in local communities with new bridges, highways and other improvements. In the best of all worlds, this might not be the ideal way to allocate funding, but it does not lead to a crisis of the sort we have in scientific research. The problem is not that earmark projects bring no benefit to institutions. I certainly hope that the University of Alaska benefitted from a $25 million supercomputer earmarked in 1991, that Wheeling College benefitted from the $6 million "Classroom of the Future" appropriated in 1992, that Loma Linda University benefitted from the $5 million for Defense Department research appropriations in FY 1993 and Gonzaga University from its $15 million for Defense Department research appropriations in FY 1993. The problem is that the nation is yielding the allocation of already limited research funds -- arguably our most important policy decision influencing the future -- to a process very skillfully and very prosperously practiced, if not invented, by well-connected lobbyists and those that they represent.

Since the early 1980s federal research dollars have increasingly been appropriated not on the basis of who can best do the needed research, but as a result of which institution can buy the most political influence in Congress.

You will be hearing from others today about some of the circumstances motivating colleges and universities to hire lobbyists to obtain research funds. Those institutions no doubt believe they are justified in seeking earmarks, but the fact of the matter is that earmarking subverts the national interest in the responsible funding of scientific research.

National interests are linked to scientific advancement in many ways. In defense, in agriculture, in commerce, our competitive standing relative to the other industrial nations depends on continuing, and in some cases recovering, the scientific leadership America has exercised throughout the post-World War II era. No one disputes whether scientific research is in the national interest. The issue is what process leads to the best scientific research. What this chart shows is that we have a growing process in which the country's research agenda is being determined not by the best science, but by the best lobbying that money can buy.

The purpose of this hearing is to examine the relative merits of allocating federal funds for scientific research by the process of merit review and, alternatively, by the process of Congressional earmarking. As you know by now, I am an unapologetic advocate of merit review because it represents a rational, efficient and responsible way, consistent with your obligation to the citizen "shareholders" you represent, to spend public research funds.

The Best Science

Let me explain at the outset what I mean by the "best" science. I do not mean only that research conducted by a clique of self-selecting elites. Important research has been done, and continues to be done, in every state in the country, in private as well as state universities. Nor do I mean by "best" that which is most readily transferrable to commerce and regarded most favorably by business. Nor do I mean what appears to the layperson as most intelligible and "best" in a common sense understanding. Some of the most important research breakthroughs have come from projects that would have seemed candidates for the former Senator Proxmire's Golden Fleece award. The initial research conducted by Vanderbilt's Dr. Stanley Cohen on why mice are born with their eyes closed might have been dismissed by some as silly. The truth is that from that simple research idea came Dr. Cohen's Nobel Prize-winning discovery of the epidermal growth factor and his subsequent research on the growth of cancer cells.

Rather, by "best" I am referring to that science which is judged best by scientists in their respective fields applying the standards developed within their disciplines. This was the premise of our nation's first science policy upon which the competitive funding programs of NSF and NIH and other agencies were established. The premise is still sound: to find out what science is best, we have to ask the scientists.

Merit Review

Unlike earmarking, merit review is a rational way to fund research. We can give a reason for why one project is preferred over another, and we can account for our choices through the judgment of scientists applying their professional standards. Research funded through the merit review system can be held accountable both to the standards of science and to the nation's needs.

Last fall a number of studies were released by both government and private organizations on the state of the nation's scientific and technological research. Among these were reports by the Carnegie Commission, the President's Council of Advisors for Science, and the NSF. In addition to calling for a comprehensive review of the country's research policy, these studies also called for greater accountability measures to be placed on research. They pointed out that research needs to be held accountable in many ways, and that this accountability should be achieved through the merit review process.

Scientists and their projects can be held accountable to the nation's needs. Those projects and facilities which are more likely to further national interests compared to other projects and facilities deserve greater encouragement because of their linkage with a national priority. Those needs and interests should be determined by a comprehensive review of national science policy.

Earmarking, on the other hand, subverts the goals set by policy through haphazard spending, the effect of which is also to bloat agency budgets. As an example, consider the FY 1989 budget for the Department of Agriculture. The President's budget request for the Department's science and education agencies contained just one building request totalling $11 million. By the time the budget emerged from the appropriations process it contained 31 earmarked building projects totalling $28.3 million. To no one's surprise, the location of the earmarked facilities corresponded strongly to the states represented by members of the agricultural appropriations subcommittees.

As you know, I am sure, agriculture research is an area in which Congressional earmarking has been the norm, not the exception. How has the United States done in maintaining its competitive position in agriculture?

In a 1989 study released by the National Research Council, it is stated that:

> U.S. global competitiveness in agricultural commodities and food products has eroded because of increased costs of production at home and heightened competition from foreign producers in the marketplace.[2]

The study, which is entitled Investing in Research, suggests that a connection can be made between the growth in academic earmarks and the decline of America's competitive standing in agriculture. The report persuasively makes the case that competitive merit review should be the means of allocating agricultural research funds. I urge this Committee to consider that report and also to consider whether the same judgment should not be made with respect to competitiveness in other industries.

Let me emphasize that earmarking is not simply a benign increase in research expenditures, as some would have us believe. Earmarking is diverting public funds from authorized research programs within agency budgets. According to an OSTP report, $600 million of authorized projects were squeezed out in FY 1993 on account of earmarks.[3] Earmarkers, in effect, take funds away from projects that have been requested by an agency of government held responsible to act in the public interest, projects that have been approved by the authorizing committees of the Congress, and put those funds in the hands of special interests. At a time when we need to be holding more of our research expenditures accountable to national priorities, earmarkers are overruling allocation decisions that have been made on the basis of national policy and priority.

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[2] Investing in Research, National Research Council, (National Academy Press, 1989) p.1.

[3] Congressional Earmarks in The FY 1993 Appropriations, Office of Science and Technology Policy (January, 1993).

Research must be accountable to the taxpayers. When the nation's indebtedness is at a record level, every dollar spent needs to be evaluated more closely. Research funds, as investments in the nation's future, need to be justified as well in terms of meeting national interests and scientific standards. We do not need a chart that looks like this.

Research can be held accountable through the kind of planning and oversight built into our current merit review system of research grants. But we should recognize that the current system can be made more effective. I would like to see a comprehensive reconsideration of the nation's research needs along the lines taken in 1945 by Vannevar Bush when his committee presented to President Truman the report, Science: The Endless Frontier, which has guided our country's research policy for the last 48 years. The outcome of such a review should be a renewed vision of what the country's needs and interests require from scientific research. It should tell us how to make individual researchers more accountable for the funds they receive for their projects. It should tell us how the needs of American industry can be addressed with programs to get our science to the marketplace more quickly.

Measures such as these fit naturally within a system of merit review. Those best qualified to assess the merit of a scientific project are the professional scientists. They are also best qualified to apply performance assessment standards and measures of professional integrity.

Unfortunately, at a time when we need greater accountability, the practice of earmarks make it too easy for a growing number of researchers to escape accountability altogether.

Response to Criticisms

Critics of the merit review system have pointed to circumstances they believe justify circumventing the merit-review system. They cite the scarcity of resources available in the merit review system, especially for facility renewal. They point to the need for distributing funding equitably among institutions and geographical regions. The lobbyists for earmarked funds claim that these factors justify appealing directly to Congress for research funds.

These are not indications that the merit review system is faulty, but rather signs that we face other problems. The advocates for earmarks have not shown us that the answer is to abandon the merit review system which has made American research the world's envy, and we have no reason to believe that doing so will solve these problems.

We can and should address these problems while still getting the best research from our scientists. We do need to address the lack of funds for facility renewal, but what we need is a rational plan to increase funding. If we need to distribute funds more equitably among geographical regions, let's consider expanding sheltered competitions for funds so that merit review is not sacrificed in the effort to involve developing institutions in research projects. The CRS data indicate, by the way, that earmarking does not distribute funds equitably. The big winners in the scramble for earmarks are many of the same schools who already receive other federal funds through merit review. If we need to get science to the marketplace more quickly let's encourage joint proposals from academic and industrial groups to compete for funds based on rational judgment of quality and take account of that need in a new national science policy.

These problems are separate from the issue of whether we need the best science. They will not be solved by abandoning the research enterprise that brought us to world leadership in science. At Vanderbilt University we do not pursue or accept earmarked funds. We also believe that it is time to rethink the nation's science policy, and make some informed public choices about how research can best serve the country's needs in defense, in medicine, in industry, and economic competitiveness. Let this new policy be the guide for our research funding. Let's hold scientists accountable to it through the merit review system.

Finally, look at the defenders of earmarks, including those who are testifying before this Committee. The ones who are satisfied and calling for more are the ones who already have vested interests in maintaining the earmark system. What other response would we expect from them? The country deserves something better from this hearing. The country deserves to hear a debate on the nation's interest in research, not rationalizations of particular universities' lobbying fees.

Trends in Earmarking

In September this Committee released two reports prepared by the Congressional Research Service that document the trend by Congress over the last 13 years to fund more and more research through academic earmarks. The chart tells the story.

By the mid-1980s the practice of designating site-specific appropriations for research projects and facilities outside the merit review process had become well established. The annual amount of earmarked dollars grew at a rapid rate and by 1989 members of the academic community joined with concerned members of the Senate and House to try to reverse the trend. They had some success. In 1990 the numbers fell slightly.

By 1991 escalations began anew. Academic earmarks grew from $270 million in FY 1990 to $493 million in FY 1991, an increase of over 82% in a single year. FY 1992 has seen a continuing steep rise with a record-setting total of $707 million, or a 30% increase.

A trend which began in facilities funding now encompasses research project funding as well.

Appropriations for Agriculture, Defense, and Energy contain the biggest earmarks and their numbers, in both dollar amounts and number of earmarks, follow a steady upward trend. In 1992 Defense had 36 apparent earmarks totalling more than $169 million, Agriculture had 271 totalling over $146 million, and Energy and Water had 44 earmarks for almost $135 million.

Other subcommittees, as well, are increasingly participating in earmarking. These include Commerce, which jumped from $15 million in FY 1992 to $60 million from FY 91-92, V.A., HUD, and Independent Agencies which jumped from $18 million to $151 million and Transportation moving from $3.8 million to $27 million.

These numbers come from the excellent analyses of earmarks prepared by the Congressional Research Service. It is absolutely essential to public discussion of this issue that the CRS continue to publish their reports and analyses. From what I understand, however, there have been efforts within Congress to hide the flow of earmarked funds. Professor James Savage of the University of Virginia, who has worked closely with CRS, reports that some Members have pressured the CRS into terminating further analyses of earmark distributions by state and institution. Moreover, these same Members have ordered CRS to no longer use the term "earmark," but instead to call them "direct appropriations."

I know that you will be considering ways to curb academic earmarks, and I recognize the difficulty of developing rules that do not at the same time affect well established practices in areas other than academic earmarks. But one thing is clear, and that is that public disclosure of earmarks cannot hurt. By trying to discourage it those engaged in earmarking suggest that it may be an impediment or embarrassment to them.

It is an understandable consequence that when resources are scarce and funds available only from Congress that institutions would appeal directly to Congress. Clearly, there are more research proposals than can be funded, and we need more research facilities than can be afforded. It is also understandable that elected representatives spend funds in ways that will clearly aid their districts.

But the nation's needs are neglected when each institution pursues its own needs. One of the biggest dangers of earmarking is that on a large enough scale -- and the chart shows that we have reached that scale already -- earmarking effectively thwarts any effort to establish national priorities as part of a national policy on research and technology. To the extent that institutions are able to acquire their research funds through lobbying Congress directly, they have no incentive to contribute to a discussion of what a national science policy would require of our researchers.

Not only is earmarking not accountable to national needs, but research performed with earmarked funds is not readily reviewable by any performance assessment criteria. On the other hand with an agency-administered competition for funds, there is in place a scientific basis on which to oversee and to report to the country through Congress on what is being accomplished with the funds. When lobbyists secure research funds directly from Congress, these oversight mechanisms are bypassed. Nobody has the responsibility of taking a second look at how the earmarked funds are used and no assessment procedures can operate to report on the results. In other words, there is no accountability. None. Zero.

I am not going to argue that all the projects funded through earmarks lack any merit at all. Nor can I in good faith say that all projects funded through merit review produce significant results. But I can say that the competitive process of merit review gives us the most justifiable way to explain how our research money is spent. It provides the best hope that we are getting the best science. We do not ever know exactly where science will lead us, but thus far it has led us very well.

When I look at this chart, and compare it to the rate of growth in research facility funding for NSF or NIH or any of the other agencies responsible for managing the nation's research investments, I ask myself whether the rules of the game haven't already changed. If this trend continues, it's clear that the rules have changed. That lobbyists are now the primary judges of America's research investments on the basis of the fees they are paid.

Finally, ask yourselves what message earmarking sends to today's graduate students and future researchers. By funding research through earmarks we are letting them know that success in science is measured by how much influence one can buy and which lobbyists one can hire. By doing so we are undermining the standards of academic excellence. Is this the way we want to say to our graduate students, who do their dissertation research on these projects, that we reward good research? That it doesn't matter how good their ideas or how diligent their work? That it only matters whether their university is paying the right lobbyist $50,000 every month?

Shall we give our graduate students a higher grade if they can figure out why paying a lobbyist causes elected officials to award their university research money without reliance on scientific judgement at all?

Of course not.

This is the wrong message. Excessive influence is not a measure of success anywhere but among lobbyists. If we are to salvage the future of American science and education we need to start sending a different message about how success in research is measured.

The Role of Lobbyists

Not all earmarks of research funds come as the result of the work of hired lobbyists, and I expect that the efforts of hired lobbyists to obtain earmarks are not always successful. And, I am sure that in some cases institutions themselves initiate discussions with lobbyists about earmarks, while in other cases client development activities lead to representations about the potential availability of earmarks. I don't in any sense represent myself as knowing just how the lobbying process works for earmarks, because I have never employed a lobbyist for that purpose.

In preparing for this hearing, however, I have discovered some facts that I simply want to put before you without trying to draw any conclusion. You may draw your own conclusion.

Gerald Cassidy was scheduled to testify later in this hearing, and his firm is prominent and active with colleges and universities receiving earmarks. According to CRS data, and published lists of Cassidy clients, those clients received over $100 million in apparent academic earmarks in FY 1992.[4] That was one-seventh of the total reported by CRS for that year. To put that amount in the context that I discussed earlier, let me point out that the amount earmarked for Cassidy clients alone was more than six times the amount that Congress authorized and appropriated for the NSF competitive facilities program for that year. According to an analysis of FY 1993 academic earmarks in The Chronicle of Higher Education, Cassidy clients received over $170 million more than a fifth of the total earmarks reported, and a 70 percent increase from 1992 to 1993.[5]

It has been reported in The Washington Post that fees charged by the Cassidy firm to its clients range from $10,000 to $50,000 per month.[6]

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[4] Source: Washington Representatives 1991, Columbia Books, Inc., The Distribution of Apparent Academic Earmarks in the Federal Government 's FY 1992 Appropriations Bill, Prepared for the House Committee on Science, Space, and Technology by the Congressional Research Service, The Library of Congress (September, 1992). Table 3 "Apparent FY 1992 Academic Earmarks, Ranked by University or College."

[5] Source: Washington Representatives 1992, Columbia Books, Inc.; The Chronicle of Higher Education , June 16, 1993, pp. A22-A26.

According to reports filed with the Federal Election Commission, individuals associated with the Cassidy firm in 1989 and 1990 contributed over $270,000, in kind or cash, to candidates for Congressional office, and with further research the total might be found to be significantly larger.[7]

Conclusion

Let me conclude with the key question. Do you want the nation's research agenda to be determined by the best scientists or by the most skillful lobbyists? To me, and I believe to the other "shareholders" you represent, I think the answer is clear.
And to judge which science is best, we need to apply the standards which have been developed within the various fields of science by their practitioners. This is what we do when our research funds are disbursed through the competitive merit review system. It is not what is done when our funds are spent in response to lobbyists asking for earmarks. We owe it to our children, to the young men and women who are working to become tomorrow's researchers. We owe it to the country, and to ourselves, to do better than this.

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[6] "How One Lobby Discovered Budgetary Gold," The Washington Post National Weekly Edition, June 26 - July 2, 1989, pp. 12-13.

[7] Source: Sunshine Press computer analysis of campaign finance disclosures filed with the Federal Election Commission covering the period January 1, 1989 through December 31, 1991 by federal candidates, PACS, and party committees.

Thank you. I will be happy to respond to your questions or comments.

The **CHAIRMAN**. Thank you very much, Mr. Wyatt. I hope Mr. Cassidy will appreciate all that free publicity you are giving him.

Mr. **WYATT**. I am sure he will.

The **CHAIRMAN**. I am going to recognize Members for questions in the order in which they appeared, and I am going to minimize my own questioning at this point.

Mr. Bartlett, you are number one.

Mr. **BARTLETT**. Thank you very much.

I am junior enough that I still need to go for Journal votes, and so I missed your opening remarks, Mr. Chairman, but I have read them, and I will tell you that I thoroughly agree with them.

I guess one is supposed to ask questions as if he were acquiring information to make up his mind. It is very difficult for me to do that here because I will tell you that I come from a background that gives me a bias here. I am very privileged to have been able to spend a fair part of my life in basic research where I have several scores of articles in the basic scientific literature. I then moved to the R&D area, where I was privileged to be able to be productive and end up with 20 patents. So I have some background in this area. As a result of this background and a number of years spent there, I can tell you that I am firmly opposed to earmarking in academia.

You know, I guess that you could go to the county landfill and find a good lunch one day, and that to me is very equivalent to saying that that is where you need to go for lunch every day, and I think that is pretty much the equivalent of saying that earmarking is okay because we find one or two projects which were earmarked and didn't turn out to be abysmal failures. This is just flat out the wrong way to go, and I hope that the Congress, in its wisdom, decides that it needs to stop this destructive practice.

I would just like to ask the panel, what do you think were the initial and the continuing motivations for academic earmarking?

Dr. **ROSENZWEIG**. Money. Money to do things that people genuinely want to do because they think they are good things to do and because they think, from the institutional point of view in some cases, they are important for the institution's reputation and program, from the point of view of the Members of Congress involved because it enhances their ability to provide benefits for their constituents and therefore enhances their political viability.

I don't think that the individual motivations are very complicated really, but I have never viewed this as a moral issue. People who engage in earmarking are not committing a sin, they are committing bad public policy. Those are different things and ought to be approached differently.

Ken Schlossberg—I think we could be friends if we knew one another better; we certainly have a good relationship on the limited basis on which we have had it so far. But I just think he is doing the wrong thing. I think what he is doing is destructive to the Nation's interest.

Mr. **SCHLOSSBERG**. I am not sure what I should say after that, but, Mr. Bartlett, there is some history here. I am not sure you are fully familiar with the history, so let me just try and make a few remarks about that.

There was a very large Federal Higher Education Facilities Construction Program in the 1960's that was run primarily through Health and Education, I believe. This was a program, as I understand it, that was run almost entirely on a first come/first served basis. That is, whichever institution applied for funds, so long as they could demonstrate that they were an accredited institution and that they were not going to construct an amusement park with the funds but indeed were going to construct a facility for higher education, academic, or science facility, that they would, in some fashion, over time receive funds. It was a very different process than the peer review process for research grants, as I understand it.

At some time in the late sixties or early seventies, the Appropriations Committees, looking at how much they had appropriated for facilities—and at that time it added up to hundreds of millions of dollars—and I don't know whether or not the demand was falling off or exactly what the situation was, but, whatever occurred, the Appropriations Committees decided they would cease appropriating a large amount of monies for facilities. There were still statutes on the books to appropriate those funds. They stopped appropriating funds for facilities.

Now, as we all know, between the 1960's and the 1990's the country has changed enormously. The pace of science has changed enormously. Many of the facilities that were built even under that program are now obsolete in terms of doing modern science for many reasons. Many institutions never applied back in the sixties. So what we have, as I think everybody agrees, is an academic, scientific, facilities situation that is truly serious. That is, we have facilities all over the country, some of them at the most prestigious institutions and some of them at the least prestigious institutions, that simply are not fit to do the work that needs to be done today.

So those institutions, looking around at the alternatives that they now have to either build facilities or replace or renovate facilities, see Congress as an alternative, and they are coming to Congress to do that.

Mr. Wyatt mentioned the Cassidy firm. I think to be perfectly open and on the table here, people should understand that I was the founder of that firm and sold it in 1984 because I did have some differences over the way academic earmarking should be done. So.

Mr. WYATT. Mr. Bartlett, I appreciate your background. You certainly speak as a person who has excelled in the merit review system. You know the value of competitive proposals. You also know the value in the minds of students that come along knowing that the best science—they can have the faith that the best science will in the end win, and we are undermining that.

I am old enough to remember, Mr. Schlossberg, the program in the fifties and sixties. I was in industry in the fifties, but I came back to university in the sixties, and those programs, as I recall, were competitive programs. Some of them were regional in nature, so that it was defined as, "We want a center for"—computer centers in a region, or whatever else was going on. But they were, in fact, competitive, and competitive proposals were evaluated in the merits.

And let me mention one other thing that was referred to in Mr. Schlossberg's testimony about deferred maintenance; at Columbia was his specific instance. Deferred maintenance has been and is a problem in universities. Yale University announced a billion-dollar problem in deferred maintenance a year or two ago. My view of that is, that is an institutional responsibility, that in fact it is not appropriate for an institution to come to Congress and ask to be bailed out of a situation by the Congress that was created by the institution.

I was at Harvard before I went to Vanderbilt—a huge deferred maintenance problem. Harvard started working on that in the early seventies. They are still working on it, and they are working it down. They are financing it with internal funds, the way things are financed generally at a university.

Vanderbilt, when I went there, had a problem of about $200 million. We have worked that down now, over 10 years, to under $50 million, and we have a plan to get out of it. It is a serious problem, but I don't think it is fair to circumvent a competitive process for research facilities and say that it is the Congress's responsibility to bail out those institutions that hire themselves lobbyists to get money to do so.

And finally, let me say one other thing. At the beginning, this earmarking problem was predominantly a facilities problem, but if you look at the last two or three years of earmarking, you will see that it is going more and more, dramatically more, for research, not for facilities, but for research programs, and that is indeed, to me, very, very alarming.

The CHAIRMAN. Mr. Bartlett, I am going to try and limit the initial round to five minutes each in order that each Member may have an opportunity, and I am going to recognize Mr. Volkmer next, but may I just say a word before.

I want to urge all the Members to keep in mind that this is not a simple problem, and I think all of the speakers have indicated the nuances of it. We are talking about earmarking or pork barrel science as if there were some clearly defined entity out there that we could attack, and that is not the case. I think you would find that there may be such a thing as good earmarks and bad earmarks. There are earmarks for facilities; there are earmarks, as Mr. Wyatt has said, that include both the facilities and programs—that include both the facilities and research programs, sometimes in the same earmark, and we need to carefully distinguish amongst the various different things and the various different remedies for correcting whatever the discrepancies or difficulties may be.

So I am urging Members to use this hearing process as a way of better understanding the entire picture so that we may be able to fabricate reasonable solutions for the entire picture.

Mr. Volkmer.

Mr. VOLKMER. Thank you, Mr. Chairman.

I first wish we could find a different word to use, since it has a somewhat bad connotation, than "pork barrel." I have a lot of pork producers in my district, and they think pork is great, and I do too, but I don't necessarily agree that this type thing, whatever it is, is so great.

But I, too, agree with the Chairman, there is not a simple answer, and, Mr. Schlossberg, I agree with you that undoubtedly through time some of the projects that were started or facilities built with earmarked funds probably have done some great good and have done some things, but so have the other projects that were constructed or projects started with research funds that were competitive.

Mr. Schlossberg, you have been involved in this for some time. Now you recognize, do you not—at least I do—that there undoubtedly somewhere in all these projects that were started or facilities built, or we started—like Mr. Wyatt said, we are now starting research projects in the legislative process, but not all of those have been meritorious to the extent that they are something that the Nation really needed. Do you agree or disagree with that?

Mr. SCHLOSSBERG. Just on the face of it, I would say that is probably true.

Mr. VOLKMER. And I come down to, in what methodology that we use in the process are we more apt to use the funds that we have, that are limited, in the best possible way? And I keep coming back to, the competitive position is the best. That is where I keep coming back.

Mr. SCHLOSSBERG. Mr. Volkmer, President Wyatt said that he wasn't entirely familiar with how lobbyists work.

Mr. VOLKMER. I think some of us are.

Mr. SCHLOSSBERG. Yes—or how even maybe the congressional process works, and he focused on agriculture in particular. I think I can tell him a few things about agriculture that might change his mind about the way some of these projects come about in terms of the kind of review they get.

First of all, by no means are all the projects funded in the Agriculture Committee members' projects. I happen to have a project there myself, and the Member who represents that institution is not a member of either Agriculture or Appropriations for that matter. So by no means are they all members' projects.

Secondly, almost all the projects in agriculture are started under what is called the feasibility study process, meaning that they are given a very small amount of money, through the Department of Agriculture, to conduct a feasibility study, and that feasibility study is conducted by the Department's scientists with outside scientists on what is called a site review committee. They go down to the institution, they visit the institution, they study the project, and they make a report back to the committee.

So this is by no means a lobbyist initiated effort that somehow ends up in a bill and nobody knows about it and the Department never reviews it, it is quite the opposite, and there is a year that takes place between the time that the project is initiated, reviewed by the Department, and the committee's action on the project to actually fund it or not fund it, and there are projects that are not funded as a result of this feasibility process.

So at least through that process and through that committee it is wide open, it is reviewed thoroughly on a scientific basis by the agency before it is brought back for funding and before it is brought to the rest of the House.

Mr. VOLKMER. And there are projects that were started back in the eighties because a Congressman felt that there was a need for them and the administration at that time wouldn't go along with it.

Mr. SCHLOSSBERG. Yes. I am not quite—

Mr. VOLKMER. I can tell you one we have got right at the University of Missouri.

Mr. SCHLOSSBERG. Yes.

Mr. VOLKMER. We still have it solely because of—and I am on the Agriculture Committee, and it is the Food and Agriculture Policy Research Institute, and the Reagan and Bush administrations both tried to kill it because they didn't like competition with USDA as far as being able to, members of the Agriculture Committee, get information on what changes in programs would do to the farmers' income and agriculture.

Mr. SCHLOSSBERG. Yes, sir.

Mr. VOLKMER. And, Mr. Wyatt, that Institute has done a tremendous service to agriculture, as far as I am concerned, because we used to get distorted facts from USDA over here, and we had no other way except through them to get an objective viewpoint. We just used it on reconciliation. I and members of the committee just used it on what the reconciliation process—the spending cuts we made in agriculture, what they were going to do to the farmer out there. Do you understand?

Mr. WYATT. I understand. I grew up on a farm and have one now.

Let me just say, my point is this. We have scarce funds in this country. We are teetering on the brink of real financial collapse, and we have to be very careful about how we spend our money. We have agencies of Government that are charged with the responsibility for managing research funds. Agriculture is one, Defense is one, there are many, they are well defined. It is their responsibility to pick and choose those things that conform to the priorities that they have determined and then go justify them to Congress. There are authorizing committees, like this one, that hear these things out, and they are certainly free and do alter the plans that the Departments bring forth, and there are disagreements, there are changes.

My point is that in the last moment in the example I gave, after the agency has had its say, the authorizing committee has had its say, and without any competitive review, in the example I gave, the budget was altered and increased by two and a half times, from $11 to $28 million on facilities. Furthermore the thing that is really disturbing to me is that in this system we now have, where there is a shortage of funds and will be for the foreseeable future, every time that is done, we squeeze out something that has been through the competitive process, the agency, the authorizing committees, and I think that is simply not right. That is not a good plan, it simply will not work well for this country, and we have to stop it.

Mr. VOLKMER. Thank you. My time has expired.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Mr. Volkmer.

Mr. Fawell is next. Mr. Fawell is a leader in the Pork Busters Coalition here in Congress.

Mr. FAWELL. So what I have heard here is music to my ears, I must confess.

I also want to take this time to commend Chairman Brown. He is, though not highly publicized, I am proud to say he is a member of the pork busters group, and certainly his leadership as a chairman of a very important committee in this Congress is of immense significance, that for him to take a stand like this and to objectively pursue the questions of earmarks, I can't say enough of my personal appreciation, and I think many Members of Congress obviously share that.

I had a beautiful opening statement, Mr. Chairman, which I am not allowed—I wasn't here to be able to express it, but I would like to have unanimous consent to have it—

The CHAIRMAN. I insist that you put it in the record, Mr. Fawell. Without objection, it will be put in the record.

Mr. FAWELL. I thank you.

What we are saying, it seems to me, is that we must have the peer review, I think especially in science where so many are like myself. I am an escapee from the liberal arts. I enjoy being on this Science Committee, but I must confess that many times I have difficulty in fully comprehending even those matters which come to the Energy Subcommittee where I am now the Ranking Republican, but certainly the Committee as a Whole, as they come forward with matters, it is extremely for, I think, the average Member of Congress to really be sure that the very best science is objectively being presented, and we in the pork buster movement, which has approximately 70 Members, a bipartisan group—we, in fact, have a seven-step test as we review appropriations—and we usually don't have the time to do it sufficiently until after the ending of a fiscal year—to determine whether or not there may be what we call procedural pork. That—actually, the pork wasn't even our word, but we try to determine, did it go through the process? If it goes through the process, a full hearing, if there is peer review and analysis, then we do not raise objections to it and ask for the repeal of that legislation.

I think one of the best examples I could think of is last year when Chairman Brown took to the Floor in a tremendous debate to object to $100 million of science research that was added in conference committee by a number of people in the Senate, and, with the help of others, that particular $100 million was knocked out.

We all felt very good about that, but near the closing days of the Congress is miraculously reappeared in the Department of Defense appropriation, and that $100 million is being spent today, and it is truly doing harm, I think, to other science research projects which have gone through many years of science review and peer review, and so it—undoubtedly I think the time has come that Congress take this very, very seriously.

The only question I have—I just so completely agree, Mr. Wyatt, with your statement; I think, Dr. Rosenzweig, with your statement too. I wasn't here when you testified, but I do plan to read your testimony. I think the two of you are in accord.

Just one comment otherwise. It has always seemed to me in regard to Federal funds for construction of facilities at higher education institutions for science research purposes that it is odd that we should reimburse for depreciation of buildings. You talked about deferred maintenance, and it has always seemed to me that if you make a grant to someone—if I make a $500,000 grant to my alma mater and then they come back to me and say, "Gee, we thank you very much, but we do need to have another $40,000 to cover depreciation," it makes no sense, but we are doing that.

As best I understand right now, with all of the R&D money that we do pay out to various institutions, they may utilize a certain portion for depreciation factors that, in effect, they just hold it out, and I don't think anybody checks to see that they are putting it into a fund that will be used for maintenance or anything of that sort. So that is something I think that hopefully this Committee can reevaluate.

But, again, I simply want to say that anything that we can do to be able to augment scientific knowledge and review for our authorizing committees I am 100 percent for.

Well, I won't go any further than that. I just appreciate the testimony very, very much and appreciate the opportunity indeed to bring this out in a Congress which finds itself so tragically short of money that we end up having to borrow from our children and grandchildren every year $300 or $400 billion, and indeed even the new five-year plan—and I don't say this in disrespect to the plan—anticipates that there will be $1.8 trillion of new debt. So we are in tough circumstances, and we ought to spend our science research money for only those projects which have gone through double and triple review and then keep drawing upon the expertise of science in regard to accountability.

I thank all of you for testifying.

The CHAIRMAN. Thank you, Mr. Fawell.

On the Democratic side, Mr. Johnson is next.

Mr. JOHNSON OF GEORGIA. Thank you, Mr. Chairman.

I want to direct this question to Dr. Rosenzweig and Mr. Wyatt.

If you take the pork barrel aspect out of the earmarking, there is some reflection of congressional policy on these science issues. I want to ask three questions, and the first one is: What role do you think, if any, Congress has in setting science policy and priorities? Secondly, what factors should be used in these peer review processes for competitive awarding of these grants? And then thirdly, I think one of the reasons for the earmarks is to assure some regional spreading out of the grants.

Would you think it would be a good idea to have sort of an interregional competition for some of the grants? Should that be a factor that is played out?

Dr. ROSENZWEIG. Let me take a crack at those first, Mr. Johnson.

With respect to your first question: What role does Congress have in setting priorities? This is the public's money that we are talking about, and in the system that we operate the public's money is dispensed by the public's representatives. I have no problem with that at all. I believe in that system, and I think on the whole it works well, although it has some characteristics that are from time to time dysfunctional, and I think this is one of them.

Certainly with respect to broad policy, with respect to legislation, with respect to matters that come before this Committee like the kind of emphasis that is given to projects like the Space Station or the SSC or what the distribution of effort ought to be generally within the National Science Foundation, those are not really appropriate matters for congressional disposition in conjunction with administration proposals, but they are essential matters for congressional disposition.

What is inappropriate, I think, is congressional intervention at the next level, which is: Where actually will that work be done? Having decided what needs to be done, in what general areas it ought to be, who ought to do it, and there I think there is no substitute for the judgments of those who are qualified to judge, and whatever else Members of Congress may be able to do individually and whatever else it is that Congress can do institutionally, I do not put high on that list their ability to make scientific judgments. No disrespect meant; it is the fact as I see it.

What factors ought to be taken into account in peer review? Certainly previous performance, scientific promise, the perceived quality of the research design, the perceived importance of the subject to be investigated. All of those are primary considerations. Having gone through that screen, agencies can and do make later judgments from among those that are judged at the top of the list scientifically about regional distributions, about economic—potential economic contributions. I think those are appropriate secondary considerations. The primary considerations ought to be scientific in character.

So far as regional spread is concerned, my sense is that that is happening naturally. I see in the South, for example, the rise of significant institutions—significant research institutions that were not there, at least didn't have that stature, 25, 30 years ago. In almost all cases, the initial basis for that development is local, not federal. That is, it is a combination of local determination to build universities, public and private, of good management of those institutions, of sound economic judgment on the part of those who are running them about where the future opportunities lie, and it is really only after all of that infrastructure, if you will, is in place that federal funding is useful.

You cannot build a university with federal funding; you simply can't do it. If you could, the U.S. Military Academy would be the best scientific institution in the United States. It just doesn't happen that way. So I think regional distribution is important. I think it happens naturally as the economies of the regions change over time and develop over time. I think it is not inappropriate to take that into account at some stage of the decision-making process, and it may be that in some programs a system of regional competitions would make some sense. I have never seen one worked out that I thought was workable, but I don't say it is inconceivable.

Mr. WYATT. Mr. Chairman, could I take a minute to answer the same question?

The CHAIRMAN. Go ahead.

Mr. WYATT. The role of Congress in setting policies and priorities is one that is very, very important, and, in fact, I appeared before this Committee and this Chairman in the seventies on an issue that was proposed by an administration—that is, to set up regional supercomputer centers to serve researchers in all fields of research. That was a controversial proposal. It was made by the administration, the National Science Foundation, after peer evaluation, but this Committee then actually had hearings, called in experts, listened to all sides of the issue, and carefully decided on doing it and altered the specific proposal constructively in the process.

That does not happen when we get these earmarks at the last minute in appropriations. So what I am saying is that with earmarking we don't get the appropriate role for the Congress, which is an important role.

The peer review—I don't have anything to add to what Dr. Rosenzweig has said.

The regional focus—earmarking is not providing—what the data shows is that the pattern of earmarks has not helped the have-not States, it has helped the States that already get the most money. It is fairly straightforward, and it happens frequently that regional competitions are set up for centers. We did that in the supercomputer initiative. We deliberately needed these centers located regionally around the country, and so we set up six, as I recall, competitions in six regions on a merit basis and received many proposals, and that worked out very well. So it is something that we know how to do, and it works well.

The CHAIRMAN. Thank you, Mr. Johnson.

Next is Mr. Rohrabacher.

Mr. ROHRABACHER. Thank you, Mr. Chairman, and I appreciate your leadership in this Committee. In many, many ways I appreciate your leadership. This, in particular, I appreciate your leadership, because I know it is something you feel strongly about.

Our current system seems to be ineffective, unaccountable, and in some ways incomprehensible, and I know we have a budget process that just doesn't work. Nobody knows how it works. Half of the Members around here don't know how the budget process works. And I have two basic questions for each of you.

The Chairman and I are both involved with a move, an attempt to reform the appropriations process which would try to take it from a dual process into a singular process, where today you have appropriations and authorization, and take that down into one actual process where the people who are going through the hearings, the authorizers, also have the appropriations powers in their hands. That is one reform that has been proposed of the process.

Another reform that has been proposed, for example, is the line item veto, which might be given to the President of the United States.

So what I would like is your comments on these two approaches to solving the problem that you are talking about, and first of all a possible fundamental reform of the budget process itself, and, number two, the line item veto, and each of you could probably give me your answer on that.

Dr. ROSENZWEIG. Well, I'll start, Mr. Rohrabacher.

My own view of the line item veto is that its effect is greatly exaggerated. It would not have the benefits that its advocates assert for it, and it probably wouldn't do the damage that its opponents fear from it. It would provide, at best, another point of negotiation in the process between the executive and the legislature, and my sense is that the changes that it would produce would be marginal at best and probably not worth the fight that everybody is going through either to get it or to prevent it, expect for whatever political benefits there are in making that fight on both sides.

So far as the fundamental reform of the appropriations process is concerned, let me try to speak as a political scientist, which I used to be in my earlier days. I don't see it happening. I have seen over the years lots of tension and back and forth between the authorizing committees and the appropriating committees. The introduction of the Budget Committees is a complication in the process. But I see primarily a struggle over turf and power within the institution rather than a serious effort to look at what is required in this Nation in order to budget and appropriate within the constraints that our political system imposes.

So I am a skeptic about fundamental reform, Mr. Rohrabacher.

Mr. ROHRABACHER. It sounds like you have got a lot of ideas about what is wrong but not necessarily—what is your idea about what is going to correct the patterns that you are complaining about?

Dr. ROSENZWEIG. Well, as I suggested in my testimony, I don't think that the prospects for change are very good. I think what we are witnessing is one of the characteristics of a political system that served us very well for more than 200 years. Constituency representation, the single-member district system, the distribution of powers, the separation of powers, the weakness of the party system within the Congress, all of those reflect what is one of the fundamental values that I am sure you share with so many other people in this country and throughout our history, and that is a basic distrust of concentrations of power. It is very hard to produce discipline in this political system, and, that being the case, the incentives work in the other direction, they work in the direction of constituency interests and Member interests in their constituencies. I think that is very hard to fight against.

Mr. ROHRABACHER. I understand your skepticism. I don't share your pessimism, however.

Dr. ROSENZWEIG. Well, good. I'm glad you don't.

Mr. ROHRABACHER. Thank you.

And the other two gentlemen might want to—

Mr. SCHLOSSBERG. Mr. Rohrabacher, I really have enough trouble just trying to figure out what to do about earmarking in my own business without fixing the congressional process. I do think that the authorization and appropriations process have worked very well for a long period of time. They give you two sets of reviews on whatever you are doing, and in that sense I think it is very valuable.

I think if you concentrate the power in one place, once again you may find that you have created a problem that you didn't anticipate in the first place.

So I don't think the country's problems are really process problems, I think they are historical problems, and I don't think they can be fixed by fixing the process.

Mr. WYATT. Let me have a quick answer, if I could, Mr. Chairman.

The CHAIRMAN. Without objection, the gentleman's time will be extended for another minute in order to hear from Mr. Wyatt.

Mr. WYATT. Good. I will only take a minute.

I support revision of the authorization and appropriations process. It seems to me that what is happening now is that the authorizing committees are being almost totally circumvented by the appropriations process. There is no open public discussion and debate of the sort I described earlier as general practice in the authorizing committees in the appropriations committees, and we can see the evidence from the data that, in fact, the authorizing committees are being bypassed. We need some reform there. Whether it is a single process or a process that requires the groups coming back together after each have operated, I don't know, but it seems to me that there has to be some reconciliation in the public arena on these disagreements.

I also would support the line item veto for the same reason. I think that the chief executive officer of the country needs to be put on the spot of acting on some of these issues very deliberately. I think the politics will take care of itself, but it seems to me that is what a chief executive officer is supposed to do.

Mr. ROHRABACHER. Thank you very much.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you very much, Mr. Rohrabacher.

Mr. Geren is next.

Mr. GEREN. Thank you, Mr. Chairman.

I want to also say I commend you for this undertaking. I think this not just a science problem with the Congress but it is an institutional problem, and I think the whole Congress could learn from your leadership on this effort.

I do have—obviously, the primary goal of our research funds has to be just promoting good quality research. Just to follow up a little on Mr. Johnson's question—I assume his question; I heard the answer; I didn't get to hear his question—I am concerned about the regional disparities. I am not sure what you do about that.

I certainly don't think that you should compromise the quality of the science in the interest of addressing the regional disparities, but there are institutions around this country that are trying to get up into the first rank and have a difficult time achieving that without having not only the funds but just the opportunity to participate in some of these projects that help make their mark and help them elevate their standing in the peer review process, and I'm not sure how you can deal with that without compromising the science.

And I guess I don't have a question really, Mr. Chairman, other than just to express some concern about the regional impact, but most importantly I think that this is an effort that needs to go forward and we need to make sure that we spend our money where we are, as a country, going to get the best results, and thank you for your work in this area.

Thank you.

The CHAIRMAN. Thank you very much, Mr. Geren.

I think you are aware of the fact that this Committee has shared your concern about regional impacts and distribution and would like to make sure that that problem is adequately resolved.

Mrs. Morella is next in line.

Mrs. MORELLA. Thank you very much.

I think most of the questions have been asked, but I was looking again at the GAO report. Of the 37 academic institutions that have received $20 million or more in earmarks during that 12-year period where $2.5 billion have gone to just that kind of earmarking, nine have improved their Federal research rank. Since the first years, these earmarks total $1 million or more, eight have experienced a drop in their ranking; one institution experienced no change; and the remaining 19 institutions do not provide a basis for comparison.

I am sorry—it is a CRS report, not a GAO report.

I guess what I am wondering is, do you have any confirmation that the monies that have been put into earmarking for these universities have reaped significant benefits in terms of global competitiveness? Do we have any tangible measurement other than a building or we are starting a new department? And I guess, Mr. Schlossberg, you are probably the one who would most be equipped to answer that.

Incidentally, Boston University is my alma mater. I notice that is high on the list, Tufts, et cetera, et cetera.

Mr. SCHLOSSBERG. Yes, Mrs. Morella. As I mentioned I think before you arrived, Dr. Rosenzweig referred to a project at Columbia University, and I said that in that case there seemed to be a clear relationship between the chemistry department for which this facility at Columbia was basically earmarked, between that chemistry department and the complex of the American Pharmaceutical Industry concentrated in the New York metropolitan, New Jersey, and Connecticut area.

The pharmaceutical industry is one of our greatest assets at the moment in terms of exports and revenues, and I think any look at that project would show that it really does play an important part in keeping that industry competitive by the research that is being done by that chemistry department in that facility.

There is another instance in which I have been involved recently, and that is the area of marine biotechnology. Marine biotechnology is a baby, growing industry in which other countries are investing literally billions of dollars; Japanese, Europeans are investing large amounts on that. We are way behind the curve on that.

One of our leading marine biology institutions, perhaps the leading one in the world, is in Woods Hole, Massachusetts, and one critical facility at that institution is what is basically a holding facility where they bring in species that they are going to do research on and send it all around the world. At this leading institution, this facility was a 100-year-old ancient fishing shack, and they were just desperate to get a modern facility not only to hold species but to do the kind of genetic breeding of species that is now done with mice, for instance, that can really bring us forward rapidly in the marine biotechnology industry. Now that is another earmarked project that I would be happy to have anybody in the world look at and see whether or not that is a good investment.

Mrs. MORELLA. I wonder if the other two panelists would like to offer any comments about the fact that, yes, you can find benefit from any money that is put into any project but that it is not really the best expenditure of money, let alone the fact that it is gnawing at the budget deficit.

Mr. WYATT. I think the CRS data that you cited is the best data we have, and that is that essentially that $2.5 billion didn't change the standing of those institutions that received it that much.

I would go further and say that we could take $2.5 billion and make it a competitive process for institutions to come to the appropriate agencies through the Congress in a format of competition and virtually guarantee that we could improve the scientific standing of even more than the 18 institutions that are cited in the CRS study. This is simply—this shows that earmarking is not the way to do it, in my view.

Mrs. MORELLA. Would you agree, Dr. Rosenzweig?

Dr. ROSENZWEIG. Yes, I do, Mrs. Morella. I don't know of any evidence that suggests a connection between the earmarked funding and scientific progress or increased national competitiveness. The assertions about that are always made in advance of the earmark, and the evidence for it afterwards is hard to come by.

I think the Columbia case which Ken Schlossberg mentioned is an interesting and revealing one in one respect because nobody doubts, I certainly don't doubt, that Columbia had and has a distinguished chemistry department and that an investment in a chemistry building at Columbia would have been justified under any competitive program had one existed.

The fact is that the reason Columbia needed the money at that time for a chemistry building is that generations of academic leadership at Columbia—institutional leadership at Columbia had simply failed to understand the intellectual importance of science and technology in a modern university and they had failed to take advantage of opportunities that other institutions had taken advantage of in earlier years when funds were available.

I don't think it is the role of the taxpayer or the taxpayer's representative to bail institutions out of their own errors even though the result of that might be in individual cases a good project or some benefit that otherwise wouldn't have been achieved.

Mrs. MORELLA. I know that you don't want to get involved in the congressional process, but one of the steps that could be taken would be that the authorizing committee does the appropriating also on a competitive basis. It might just be one step closer toward closer scrutiny, and I think our chairman and ranking member might well agree.

Thank you. I yield back.

The CHAIRMAN. I might just comment that there are other steps that we could take. We understand in this committee the great backlog of unmet needs for research facilities around the country, and we have categorized that as being in the $5 to $10 billion level and have repeatedly suggested that we need a program to fund this at some reasonable level.

One solution would be for us to pursue that more vigorously and see if we couldn't convince our colleagues that this is the proper way to go for the Congress as a whole.

Mr. Walker.

Mr. WALKER. Thank you, Mr. Chairman.

Mr. Wyatt, I'm sorry I wasn't here for your testimony, but I am told by staff that there was a piece of your testimony here that probably needs to be elaborated on a little bit, beginning on page

13, where you talked about the excellent analysis of earmarks prepared by the Congressional Research Service.

You go on to say that, from what you understand, there have been efforts within the Congress to hide the flow of earmarked funds; that Professor Savage of the University of Virginia, who has closely worked with the CRS, reports that some Members have pressured CRS into terminating further analysis of earmark distributions by State institutions; moreover, these same Members have ordered CRS to no longer use the term "earmark" but to instead call them direct appropriations. We love euphemisms around here.

Could you elaborate a little bit more on that? I think some of us would find that to be a disturbing trend if, in fact, the research work going on in this area is now being jeopardized by Members who are so far into pork barrel that they are even concerned about the terminology used for it.

Mr. WYATT. Well, this is the information that we received through Professor Savage, who has worked more on this issue than anyone I know. It is a vital source of information.

In fact, when I started looking at this problem again back in—there was a little dip there in 1989 and 1990, during which time I worked extensively on it, along with the chairman and other Members of Congress, and I suppose we can say that we had a little effect, but it didn't last for very long because it shot up afterward, and the only way we are able to track what actually happened, that really provides the material that leads to what constitutes these earmarks, is this CRS study, and it is true that it is difficult to define a singular form of earmark—that has already been described—but we can go through that information that the CRS provides and develop definitions and categorizations, and I think that is absolutely the key to understanding and solving this problem.

So I view with great alarm certainly an attempt to prevent CRS from developing and making public this data. That can't be in the Nation's interest.

As far as terminology, I think it is sort of amusing that earmark has been substituted for pork and now a new substitution is being proposed. The important thing is that we have that information and it is publicly available for analysis.

Mr. WALKER. And it seems to me it is very important to this committee as well, and so I would hope maybe our committee might put some additional pressure on CRS to continue the work and continue it in a verbal form that we all understand what is going on.

Mr. WYATT. I certainly hope so.

Mr. WALKER. Mr. Schlossberg, the project at Columbia that you were referring to here a few minutes ago, was that the vitrification project?

Mr. SCHLOSSBERG. I'm sorry, sir?

Mr. WALKER. Was that the glassification process?

Mr. SCHLOSSBERG. That wasn't Columbia, that was Catholic University. I'm sorry. There were two projects. One was at Columbia, one at Catholic University, and the vitreous glass project was at Catholic University.

Mr. WALKER. Okay. Well, there was one at Columbia too that I remember well, and I was just going to ask you whether you were involved with it, because I remembered well that we approved the project through a direct appropriation only to find out the next year that they didn't have any building for it, and so then they came back to Congress wanting the money to build the building so that they could do the earmarked project, and I would suggest to you that that is the kind of thing that becomes a little hard for us to gather.

Mr. SCHLOSSBERG. That was not my project.

Mr. WALKER. Okay, fine.

Were you involved—and I have forgotten the nature of the project, but there was one at Indiana University here—

Mr. SCHLOSSBERG. Not my project.

Mr. WALKER. Not your project.

How about Merrywood?

Mr. SCHLOSSBERG. Not my project.

Mr. WALKER. Not your project, okay. Well, that is helpful.

The CHAIRMAN. Mr. Schlossberg only has good projects.

Mr. WALKER. I see. Well, he says in his statement there, I notice, that he has a way of doing evaluation on these.

Maybe we ought to take your methodology for evaluation and give it to the Appropriations Committee. I mean it might be helpful if they would have some system of evaluation. Anyhow, it seems to be whoever has the clout at the moment, whoever will tell them that they will vote for their bills all the way through, gets the projects, kind of regardless of the merits of them.

Mr. SCHLOSSBERG. As I explained before, some subcommittees have different ways of operating. In Agriculture, it is very different. In Agriculture, every project gets a feasibility study by the Department of Agriculture. They take time to do it. It comes back to the committee, it is reviewed inside the Department, outside the Department; it couldn't be reviewed more by God.

The CHAIRMAN. Would the gentleman yield to me?

Mr. WALKER. I would be happy to yield to the chairman.

The CHAIRMAN. There are some differences in the Agriculture Department, and part of the reason for that is in the, I think, 1980 farm bill we rewrote the law to require that any projects in the Department of Agriculture go through a review process. You could only fund them up to a half-million dollars for the feasibility study, and then if the total cost exceeded $10 million it had to be authorized and then appropriated. This is the process we recommend for all programs, but even with this legislative framework we get into some anomalies in the Agriculture Appropriations Subcommittees. I am going to look very carefully at what they do this year, but I have seen in the past that projects that have gone all the way through this process, were being recommended by the Department and OMB and the President, were rejected in favor of other projects that were supported by members of the appropriations subcommittee that hadn't gone through this process.

Now they would be subject to a point of order probably, except that nobody raised it or they got a rule that protected them against points of order. So those things can still happen.

Mr. SCHLOSSBERG. Yes, sir.

Mr. WALKER. Let me just raise one other point here, and I know my time is just about up, but the Chronicle of Higher Education article that was included in our packet here today indicates that the single largest earmark, the largest ever up until at least the time of the article, is the Consortium for International Earth Science Information Network, that we call CIESIN here, and one of the worrisome aspects of that one is, that appears to be one where there is even now a new idea as to how academic pork gets distributed, because what you do in this particular case is, you form this consortium, and then, as it turns out, our investigation over the last couple of weeks indicates that every member of the board of directors ended up getting a project out of the CIESIN appropriation, so that now what you have done is, you have formed a consortium, put government money into it, you have got this operational entity out there, and then all the members of the board of directors come in and take a dip out of it, so that there is not even a congressional review process. The only review of it is the review for forming the agency in the first place. It gets a huge sum of money, and then they are responsible for apportioning the money, and the money happens to go to all the members who are on the board, and I've got to tell you, that one is kind of a worrisome new aspect of this, and I wonder whether any of you would comment on whether or not that is a pattern that disturbs you.

Mr. WYATT. It certainly disturbs me, because it is just earmarking on a much larger scale, and I am not familiar with this one because it is relatively new, but some of the others that are similar, they even go through the motions of describing this process by which they carve up the earmark as a competitive process, which of course is a farce.

Mr. WALKER. Thank you.

Dr. ROSENZWEIG. I agree, Mr. Walker. I hope you can persuade some of your colleagues that it is a bad idea also.

Mr. WALKER. Okay.

Mr. Schlossberg?

Mr. SCHLOSSBERG. I am not familiar with that, Mr. Walker.

Mr. WALKER. Okay.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Mr. Walker.

Mr. Royce.

Mr. ROYCE. Yes.

Chancellor Wyatt, I think I have learned something here today that I had not realized, and I know this process does not go on at your university, but the thought that a significant portion of a budget could go in commissions to pay for lobbying activity in essence, and looking at the apparent academic earmarks, that chart that you provided—that has been provided that seems to indicate close to $700 million a year now—I wonder, do you have a feeling for how much in funds spent out of university budgets in the United States today go toward this process of paying for commissions or lobbying activity in order to get at these funds.

Mr. WYATT. Unfortunately, I do not. That information is not publicly available. We tried to get it, and we simply aren't able to get it.

Mr. ROYCE. Would you suggest that perhaps we put in legislation some requirement that if funds are, in fact, earmarked that there somewhere in the university's records be a compilation of what was paid in order to lobby for those funds?

Mr. WYATT. I think that would be a good idea. I think we need to have some way of getting at—if this process is going to be allowed to continue, it is involving public funds in the end, and we need to be able to understand it.

Mr. ROYCE. I think we should close down or reform the process in the ways that you have suggested. If we do not, at the very minimal, this Congress should do, it should be to collect that data in the hopes that that then forces us to reform the process.

The CHAIRMAN. Mr. Schlossberg wanted to comment on that question.

Mr. SCHLOSSBERG. Right.

Mr. Royce, I just want to make sure there is no misconception about either the question or the answer. It is illegal to pay—to use the funds for the project to pay the lobbyist; that is number one.

Mr. ROYCE. Right. The funds come out of the university's budget, correct?

Mr. SCHLOSSBERG. So the funds have to come from some place else in the university. They do not come out of the project, per se.

Mr. ROYCE. No. I understand they do not come out of the project.

Mr. SCHLOSSBERG. Secondly, there are all kinds of reporting requirements now. They by no means cover the waterfront in terms of what is actually being paid to do the lobbying, but you can go to the current registration reporting data and find out in some fashion what is being paid for these projects.

Dr. ROSENZWEIG. Mr. Royce, there is something about this subject that has puzzled me ever since I first became aware of it, and that is why any university would pay a lobbyist to do this. From the lobbyist's point of view—no disrespect to Mr. Schlossberg who is very good at what he does—it is like shooting fish in a barrel. I mean the lobbyist is going up and helping Members of Congress do what they want to do for constituents to do what they want to do.

Now I am sure it is more complicated than that as you work these things through and find the right pockets of money and so on, but for an institution to be willing to pay $40,000 or $50,000 a month for a couple of years in order to do what, if they went into their Member's office and said, "Hey, I've got this problem; can you help me solve it?" would probably get it solved for nothing. It just puzzles me. I don't understand why people are persuaded that that is a worthwhile expenditure of their funds.

Mr. SCHLOSSBERG. Well, why does the AAU exist?

Dr. ROSENZWEIG. We have lots of reasons.

The CHAIRMAN. I was going to ask that question myself earlier. "Lobbying" is sometimes used in a pejorative way, and I don't think that it normally should be. There are good lobbyists and there are bad lobbyists, of course.

Go ahead, Mr. Royce.

Mr. ROYCE. Thank you, Mr. Chairman. I think that concludes my questions, unless there is anything that the witnesses would like to add in terms of suggestions for reforming this process at this time.

Mr. SCHLOSSBERG. I have suggestions in my statement, Mr. Royce, if you haven't seen them, and they are that there should be statutory authority for projects; they should be thoroughly reviewed by the agency and Members of Congress; they should go through the regular committee review process; and if they can pass all of those reviews in the open, under the best scrutiny that you can give them, then they are probably pretty good projects. Competition is not a bad thing. There are some questions about how the rest of the system works. So I am for them, and I think if they are done properly they should continue.

Mr. ROYCE. But if we do away with earmarking, then we will have the closest thing to peer competition, if I understand it.

Mr. SCHLOSSBERG. Well, if you create a program, and that is the big if. There is none, there hasn't been any, and there doesn't seem to be a prospect immediately of there being one.

Mr. ROYCE. Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Mr. Royce.

Mr. Klein.

Mr. KLEIN. Thank you very much, Mr. Chairman.

First of all, at the risk of being redundant, I do want to commend very enthusiastically the chairman for the leadership in—

The CHAIRMAN. It is never redundant to praise the Chairman.

Mr. KLEIN. Well, I knew I was only taking a very small risk, Mr. Chairman. I am just delighted.

And my reaction to the whole subject of earmarking, if you will, or, to be more blunt, the pork barrel approach, is that so often we find in both Houses that those who are the most outspoken opponents of, quote, pork barrel in the generic and general sense are the ones who are most vigorous in securing for their own constituencies the funds for their particular pet projects, and I think if we are going to have a policy of meritocracy—and I strongly support the meritocracy, particularly in the science area—I think it is absolutely essential that we pursue that meritocracy even-handedly and not do so in a general way and then find that, when it comes to the project that is close to home, we abandon the policy and fight for our own home turf. You can't have it both ways.

First of all, I want to commend the panel for the very, very helpful recommendations, and I think they are good recommendations. I would hope that we could take those recommendations and incorporate them into some appropriate standards. The earmarking by appropations committees, I think, is a very, very poor away of going about spending funds for scientific research.

I do have some questions, first of all about whether, if we leave to the scientific community the task—or to agencies, the task of determining which projects are to be the recipients of our funds, do we run the risk that there may be, quote, politics that may come to play in those processes as well? and I would like your comments on that subject.

Dr. ROSENZWEIG. I think, Mr. Klein, that in some respect Congress takes a bad rap on this, because what it does is more public than what happens in the administration, and as the processes are more visible, at least the end results of the processes are more visible, and that it certainly has not been unknown for presidents to use public works projects, including, I am sure, science projects, for political or partisan advantage.

There is something like executive pork, and it needs to be guarded against as jealously as congressional pork needs to be guarded against, in my view, and the way to do that in both cases is through vigilant protection of the merit review processes that exist in the agencies that are primarily responsible for distributing federal science funds. I don't think it is any better if it comes from the executive branch than if it comes from the Congress.

Mr. KLEIN. Mr. Schlossberg?

Mr. Wyatt?

Mr. SCHLOSSBERG. I agree with Dr. Rosenzweig.

Mr. WYATT. I think that you have a process here now that has worked, in the past 20 years that I know of, very well in this Committee, that the administration sends over its budget recommendations and you all vet them. You have witnesses here on the science, the quality of the science, the quality of the projects.

The problem is, that is all being circumvented, and I think that is the issue. The politics of the situation, in my view, and the system that is set up in the administration's requests and the authorizing committees is a very healthy process that worked and worked very well. What has happened in the last few years is a serious problem that needs to be corrected, and that is circumventing the process that existed and worked for a number of years.

Mr. KLEIN. Mr. Wyatt, you state that, "Unlike earmarking, merit review is a rational way to fund research." In concept, I totally agree with that and I applaud it, but I have heard the criticism that merit review is an old boys' network that doesn't welcome innovative, high quality research from those who are not members of the network. How do you answer that criticism?

Mr. WYATT. I have heard that a lot, and that particular assertion has been studied a great deal, and I think it is found generally to be untrue, unsupportable. I know when I hear it—when I heard it most was when I was testifying before an appropriation committee, and one or another Member would allege that their scientists were as good as those elsewhere and it was just their responsibility to help them out when, in fact, they had an equal shot, just like everyone else, at the merit review process.

So I don't believe it is supportable based on the 20 years or more worth of studies of the question that I have seen.

Mr. KLEIN. Thank you.

Mr. Chairman, there is something I want to discuss with you, a project in my district. Do you think it would be appropriate to do it now?

[Laughter.]

Thank you very, very much.

The CHAIRMAN. Actually, this Committee has been for a long time concerned about regional distribution of research funding and has helped to put in place programs such as the EPSCoR program which are aimed at achieving at that. Unfortunately, that program is not adequately funded, and we have encouraged federal agencies to focus on programs which they have under their jurisdiction to help achieve better regional balance in the distribution of research funding also.

Gentlemen, this concludes our hearing this morning. I want to express my great appreciation to you for your helping us get started on this analysis. We plan to hold two more hearings, the next one hearing directly from universities about the value of earmarks that they have recently received, and I am sure we will find that many of these earmarks were used to fund very important and valuable programs. We want to understand the full background of these programs however, and then we will have a third hearing on the impact on federal agencies.

Now let me cite an example of what I mean here. A few years ago there were headline stories in the Washington Post about the decaying facility at Beltsville for agricultural research, with pictures showing inadequate maintenance and a lot of things of that sort. At the same time, in the Ag. appropriation bill there was extensive money going to earmark projects that were supported by various Members. The facilities upgrade at Beltsville was obviously something that the administration wanted, should have had, but wasn't getting because the facilities money was going to the earmarked projects.

I think we need to understand in more detail these possible kinds of impacts also, and we will devote part of one of our hearings to that.

And with that, again, let me thank you and hope that none of you get hurt too much as a result of your appearing here this morning, and the hearing will be adjourned.

[Whereupon, at 12:08 p.m., the Committee was adjourned.]

ACADEMIC EARMARKS—PART II

WEDNESDAY, SEPTEMBER 15, 1993

House of Representatives,
Committee on Science, Space, and Technology,
Washington, D.C.

The Committee met, pursuant to call, at 9:40 a.m., in Room 2318 Rayburn House Office Building, Hon. George E. Brown, Jr. [Chairman of the Committee] presiding.

The Chairman. The Committee will come to order.

Without objection, permission is granted for coverage of this hearing by video, audio, print or other media. I don't say we encourage it, but we do approve of it.

I want to welcome everyone to the second in the Committee's series of hearings on the practice of academic earmarking. The first hearing, held in June with witnesses from the academic and lobbying communities, focused on the pressures that have resulted in the proliferation of earmarking in recent years.

Today, we will center on the results of the earmarking process. By results, I mean both the benefits of earmarked funds to a university or local region, and they are frequently very substantial, and the ways in which earmarking affects national scientific and technological priority-setting, which is not always so beneficial.

In this hearing we will hear testimony about earmarked projects at three universities and from three federal agencies. In addition, we have written testimony from two additional universities that had prepared such testimony for our earlier postponed hearings.

The foundation for today's hearings is the responses the committee received from 50 universities contacted earlier this year regarding fiscal year 1993 earmarks. These responses and interviews with agencies formed the basis of an interim report which was released in August on academic earmarking. Copies of that report are available to any who are interested. Although many of the responses indicated that some high quality work is being performed with earmarked funds, it is still my belief that congressional favoritism is no substitute for merit review of individual projects.

And I should interject at this point that this hearing is not intended to point the finger at any university or to claim that they are committing a sin of some kind. The focus is on the process by which this is being—these earmarks are being made, and the focus or the criticism, if any, is on the congressional activities and processes themselves.

One of the more surprising things I learned from these responses is that there is a very broad definition of peer review among institutions of higher education—in fact, one university said it was not familiar with the term. I also learned that the majority of our respondents don't know the difference, or at least clearly don't understand the difference between authorizing and appropriating legislation. Perhaps that's a reflection of the true lack of importance of authorizing committees.

I want to make it clear that while I am not opposed to the goals of many earmarked projects, I do oppose two troubling aspects of this problem. First, with the Congress itself, I question the irregular and closed process by which funds are awarded to specific institutions. This is a process that excludes 95 percent of the Members from their rights embedded in the Constitution actually to shape budget priorities and participate in the allocation of taxpayers' dollars.

Secondly, I am deeply concerned with the effect that earmarking has on the United States' scientific and technological infrastructure and how it affects national priority-setting.

Earmarking circumvents the system we have in place which allocates funds based on national needs and competitive merit review. Earmarking places the priority-setting and the funding process in the hands of a very few individual institutions with powerful congressional allies or lobbyists. As a result of this combination of special interests, earmarking projects often steer agencies, Federal agencies away from their stated mission. For example, earmarks have caused the Department of Energy to spend $171.8 million of its scarce research capital in building medical research centers since fiscal year 1990. NASA has been put in the business of building high-tech education facilities, and ordered the Environmental Protection Agency to build facilities to house computers. None of these roles are central to the missions of these agencies. Not only do earmarks take agencies far afield from areas of expertise, but with tight-budget agencies they must reorder research priorities to fund earmarked projects, paying for earmarks out of the hide of requested agency research projects.

I should indicate also that in addition to circumventing the normal processes of the Congress this earmarking process totally evades the responsibility of the executive branch to set priorities and to review projects through the normal budgetary process. This Committee understands the tremendous funding pressures our universities are under to upgrade research facilities and to fund research projects. Increased competition for scarce federal research dollars is inevitable. However, earmarking serves only to widen the gulf between the haves and the have-nots. Of the 3601 institutions of higher education in the United States today, only 170 schools, less than 5 percent, shared in the $708 million of earmarked funds in 1992. In 1993, slightly more than 6 percent of U.S. academic institutions shared $763 million. Earmarking is not the answer to the problem.

We have, incidentally, displayed a chart which was created, I think, by the Chronicle of Higher Education, demonstrating the growth in earmarking over the last several years, but it does not include the 1993 figures, which are the largest. They are larger than the '92 figures.

I believe that the Committee's work and findings on earmarking have had some impact. For example, some of our colleagues on the

Appropriations Committee stated that they will not include academic earmarks in their fiscal year 1994 legislation or report language, and I want to especially commend our colleague Mr. Carr, chairman of one of the appropriations subcommittees who has taken a very strong stand and who has given us a letter indicating his desire to end one of the programs that was most abused, the Airway Sciences program, and I believe with his strong cooperation we will be able to achieve that. I want to thank him for that, and his letter will be put in the record.

For example, or perhaps more significant is the fact that the National Science Foundation's research facilities program has been recommended for funding of $150 million by the Senate Appropriations Subcommittee, headed by Chairperson Mikulski, just within the last few days. The cumulative total of this facilities funding program for 6 previous years—cumulative for 6 years—was only $93.5 million dollar. Senator Mikulski has indicated that will go to $150 million next year, and if she is able, $200 million the following year, and this will have a very beneficial effect on the general situation. We will continue to follow closely the appropriations legislation and report language as it comes out of committee and conference, although it appears that earmarking is decreasing and we are moving in the right direction.

Some of this change may be due to our efforts to reform the rules of the House late last year. Some may be due to changes in the leadership of the Appropriations Committee or to hearings like this which expose a practice which fundamentally cannot hope to survive in the sunshine. But considerable resistance to our efforts remains, and more needs to be done. I would suggest that federal agencies must say "no" to earmarks that are specified in report language accompanying appropriations legislation. And specifically, I intend to work with the Administration on developing an executive order to support agencies in refusing to obligate funds earmarked in report language.

In closing, I would like to state that I remain committed to limiting the practice of earmarks and that I believe my efforts have not fallen on deaf ears. I regret that I have used a personal term here so often. Actually, what I am doing is on behalf of this Committee. I believe that it enjoys the wholehearted support of the Committee. I know that on the floor of the House, as affirmed by votes taken wherever the opportunity arose, the House itself rejects this practice by overwhelming margins. However, I also realize that I have placed a task before the authorizing committee to move legislation promptly and effectively and to work in a cooperative fashion with the Appropriation Committees to ensure adequate funding for authorized programs to address the concerns of our colleagues on the Appropriation Committee. The Congress, the Administration, and our academic community must work together to develop a national framework to ease the pressure on our research community while serving the national interest.

Now, I am pleased to recognize our distinguished Ranking Republican member, Mr. Walker of Pennsylvania, for his opening statement.

Mr. WALKER. Thank you, Mr. Chairman.

And I am pleased to join with you this morning at this hearing on an issue which has been very important to both of us. Often the practice of earmarking funds without appropriate congressional authorization and peer review is bemoaned by Members of Congress, the press and the scientific community. But I am not aware that a series of hearings such as this one in this Committee that we are sponsoring has been held before.

These hearings are an opportunity for the Science Committee to build a written record on the growing practice of earmarking federal funds for academic projects. And I just want to add there a note of personal congratulations to you, Mr. Chairman. You are in fact leading the effort, and I think that it is the right thing to do, but it's also a tribute to your leadership because there is no doubt that this is something that's far more difficult for you to do as Chairman of this Committee than it is for some of us on the Minority side or even more junior members on the Majority side who don't face nearly the kind of pressures in this kind of investigation that you face. And I congratulate you for it, and I am honored to be a part of the process.

I've examined both the answers submitted to the Chairman's preliminary questions and the written testimony submitted by the witnesses, and I must say that on paper at least many of the projects that are being handled by these institutions look quite impressive. The statements, however, do not address several issues which I believe go directly to the heart of the debate over the wisdom of funding science projects in this manner.

In all likelihood, the projects described by today's witnesses are good programs and the facilities being constructed with federal funds will be used to conduct sound research. I have very serious concerns, however, about the public policy implications of continuing to fund federal scientific research in this haphazard manner, and I will be interested to hear from the panel their reasons for seeking earmarks that resulted in the projects that are being brought to us.

We have, for instance, among the four rather typical cases before us today a biomedical facility funded with Department of Energy funds and a facility funded with EPA dollars which only promises that there may be some environmental related research among the other things being done with the money.

We hear repeatedly that federal research and development is underfunded. If this is the case, then it makes little sense to reallocate scarce research dollars to construction projects simply by virtue of being located in a powerful Member of Congress's district.

Up until 10 or 15 years ago this practice as pertains to academic research was virtually unheard of. Now it's becoming common practice to fund projects this way regardless of the connection to the unlucky agency's mission.

The Congressional Research Service report prepared for this Committee indicates that the number of academic projects that were funded through earmarks grew from 7 in 1980 to 499 in 1992, which in my view is a very unhealthy trend.

As I said earlier, the universities represented here today are probably doing very good work, and if these projects are very meritorious, then the question is why do their backers seem to shy away from the very process which rewards excellence. I hope the witnesses before us today will answer that kind of question. I expect that we will hear that the peer review process simply did not recognize the worth of their proposals and they were forced to seek other sources of funding. The problem is then when you politicize those funding sources you in fact get into a process that takes away from projects that the peer review process did say were excellent.

Chairman Brown and I have both been involved in crafting legislative solutions to the problem of academic earmarking. Other members share our concern. Earmarking is an insidious practice which I admit may yet defeat our best efforts to halt it. My hope is that the academic community will see the harm that politicizing research in this way will cause and begin to take steps on their own to impose rigorous standards to police themselves.

Again, I look forward to this morning's discussion and I thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Mr. Walker.

I would be happy to recognize other members for brief opening statements if they wish.

Mr. CALVERT. Mr. Chairman, I would like to hear the witnesses as quickly as possible, so I will pass.

The CHAIRMAN. That's very statesmanlike of you.

Mr. MINGE. Mr. Chairman, I'll pass also. Thank you.

[The prepared statement of Mr. Grams follows:]

ROD GRAMS
6th District, Minnesota

COMMITTEE ON BANKING,
FINANCE AND URBAN AFFAIRS
Subcommittees
Housing and Community Development
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Consumer Credit and Insurance

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STATEMENT OF THE HONORABLE ROD GRAMS

COMMITTEE ON SCIENCE, SPACE & TECHNOLOGY HEARING ON ACADEMIC EARMARKS

Mr. Chairman, I want to commend you for holding this second hearing today regarding academic earmarks. I am very concerned over the growing portion of research funding which is being earmarked rather than being awarded through a merit review process.

Since joining this Committee, I have held the view that scientific research goals must be established by this Committee - not the appropriators. If we continue to allow earmarked research funding to go unchecked, we are effectively turning over our policy making authority to the Appropriations Committee or senior members who are more influential.

As a freshman member who does not serve on the Appropriations Committee, I can tell you that I was not elected with funding earmarks in mind. My constituents elected me because they were tired of the "business-as-usual" mentality here in Washington. They expect me to do the job they sent me to do. Part of that job includes ensuring that we reduce unecessary spending and that the taxpayers get the best research for their tax dollars.

I am not inferring that the research being conducted through academic earmarks is somehow sublevel. In fact, many of the academic institutions that have received line-item funding have developed world-class research facilities and produced scientific breakthroughs an areas ranging from medical science to high-energy physics. My concern is that in earmarking academic research, we are encouraging educational and research institutions to circumvents the legitimate review process.

Mr. Chairman, I look forward to reviewing the testimony of our distinguished witness panels today. I am also interested in working with you and the distinguished gentleman from Pennsylvania, the Ranking Minority of the Committee, in working to alleviate the growing concerns over this issue.

Thank you.

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The CHAIRMAN. All right. Without objection, the full record of correspondence dealing with this subject with the institutions involved and this morning's testimony will be made a part of the record.

At the present time we will ask the members of panel one to come to the table. That includes Dr. Charles McCallum, President of the University of Alabama at Birmingham; Dr. David Gute, Interim Director of the Center for Environmental Management, accompanied by Dr. Melvin Bernstein, Vice President for Arts, Sciences and Technology, from Tufts; Dr. William A. Polf, Deputy Vice President for Health Sciences at Columbia University. And we have the written testimony, which will be made a part of the record, from Dr. Harvill C. Eaton, Vice Chancellor, Office of Research and Economic Development at Louisiana State University. And I might point out that Dr. Eaton—Mr. Eaton has also indicated that they will be pleased to appear at a future meeting, and we will try and arrange such a meeting at their convenience.

I would also like to welcome to the table our distinguished colleague, Mr. Bachus from Alabama (Spencer T. Bachus, III). And I am going to ask Mr. Bachus if he'd be kind enough to introduce Dr. McCallum and say a few nice words about Alabama.

Mr. BACHUS. Thank you, Chairman Brown.

It's a real honor for us to appear before the Committee, and we appreciate the opportunity of being here.

I wanted to introduce, first of all, Dr. Charles McCallum, who is the President of the University of Alabama at Birmingham, where the Medical College of Alabama is located.

Dr. McCallum is a native of Massachusetts. He studied at Dartmouth, Wesleyan, holds a degree from Tufts and also from the University of Alabama. He served as president, former president of the American Association of Dental Schools, the American Association of Oral and Maxillofacial Surgeons. He's also served—is Chairman of the Board of Commissioners of the Accreditation of Health Care Organizations. So I think he's well-qualified to testify to you on the matters before this committee. He is an advocate of peer review.

I will tell you something about the University of Alabama-Birmingham. Last year the U.S. News and World Report rated the University of Alabama-Birmingham as the number one up-and-coming medical school in the country. It is one of the two diabetic hospitals in the world which holds the distinction of being a diabetic hospital, of having a full service diabetic hospital. It also performed more kidney transplants than any other hospital in the world.

Among those, to my knowledge, that have been treated there in the past 5 or 6 years are heads of state from foreign countries, members of the royal family of Saudi Arabia, professional golfers, professional athletes, and many actors and people that if I called their name you would know them.

I also welcome the opportunity of being able to testify to you over the value of the new Biomedical Center. Its potential is enormous and the benefits will not only impact Alabama but the United States.

I appreciate you giving me the opportunity to introduce Dr. McCallum and to tell you briefly of the important role that the University of Alabama in Birmingham plays.

Thank you very much.

The CHAIRMAN. Thank you, Mr. Bachus, and I want to extend to you an invitation to join with the Members of the Committee, make sure that we treat Dr. McCallum with the proper respect.

Mr. BACHUS. Thank you.

The CHAIRMAN. Dr. McCallum, I want you to be aware of how much good publicity you can get by appearing before an authorizing committee.

[Laughter].

Dr. MCCALLUM. I look to be—I hope I'll be there frequently, Mr. Chairman. I would like to thank Congressman Bachus for his—

Mr. BACHUS. Could I say one other thing which—sometimes in a resume you do not really get a feel for a person. Mr. McCallum is known nationally as not only the president of the University of Alabama-Birmingham, but one of the few presidents that actively teaches courses and also treats patients, as well as serves as the head executive of the university. And he has a patient load there where many people who are indigent are treated at the University of Alabama-Birmingham, and he participates in that outreach also. So I want to commend him for that.

The CHAIRMAN. Yes. We would like to also commend you, and we want to indicate to you, you shouldn't be hiding your light under the bushel here.

STATEMENTS OF CHARLES McCALLUM, D.M.D., M.D., PRESIDENT, UNIVERSITY OF ALABAMA-BIRMINGHAM, BIRMINGHAM, ALABAMA; DAVID GUTE, Ph.D., INTERIM DIRECTOR OF THE CENTER FOR ENVIRONMENTAL MANAGEMENT, ACCOMPANIED BY MELVIN BERNSTEIN, Ph.D., VICE PRESIDENT FOR ARTS SCIENCES AND TECHNOLOGY, TUFTS UNIVERSITY, MEDFORD, MASSACHUSETTS; WILLIAM A. POLF, Ph.D., DEPUTY VICE PRESIDENT FOR HEALTH SCIENCES, COLUMBIA UNIVERSITY--CITY OF NEW YORK, NEW YORK, CITY

Dr. MCCALLUM. Thank you, Congressman Bachus, for your very, very kind remarks. And, Mr. Chairman, my statement this morning will very briefly summarize some of the significant points that I have submitted to you and the Committee on September 3.

At this time I would like to ask that the submission be made a part of the record of this hearing.

The CHAIRMAN. It will be made a part of the record.

Dr. MCCALLUM. I also want to thank you for inviting me to be part of this panel this morning, and I would like to commend you and your committee for your work and your interest in the whole area of peer review and grants.

At the outset, Mr. Chairman, we sought federal participation in a new biomedical research building in order to assure that our biomedical research programs could respond to national initiatives and permit our faculty to continue to contribute to the growing body of knowledge which provides citizens of our country with a high standard of quality health care. At UAB we are very proud of the ability of our faculty to compete successfully for research support and of their contributions to the extension of knowledge using the financial assistance provided not only by the Federal Government, but many other private and other agencies. We are anxious and determined to maintain, and, in fact, improve our competitive capacity. Among universities we rank third in the Southeast among all universities receiving federal research and development funds. We rank 19th nationally and are 16th among all state universities in the United States.

Our Department of Microbiology, which will occupy much of the space in the biomedical research building ranks first among all such departments in the United States, and we as an institution rank 18th in the United States among institutions receiving peer reviewed NIH research grants.

The presence of a nationally competitive biomedical research capacity at UAB has had a profound effect on the economy of the Birmingham area, and Alabama as a whole. The university has become the city's largest employer with an annual operating budget of over $882 million and an annual payroll of over $380 million, and we employ almost 16,000 individuals.

We have led Birmingham's transition from a steel town to an economy with a balance of health care, biomedical research and biotechnology, engineering, communications, financial services, and manufacturing. Most importantly, however, research at UAB has had a profound effect on the quality of health care available not only to Alabamians, but also to those who come to us from other States for care. Further, the contributions of our researchers have enhanced our understanding of basic cellular biology and gene functions. It is not, therefore, surprising that all members of our congressional delegation have been strong supporters of UAB and its Medical Center. There's a longstanding tradition in the delegation of working together on matters of major importance to Alabama and particularly in areas where we can truly make a national contribution. This tradition continues today under the leadership of the Dean of the Delegation, Congressman Tom Bevill. All of our Members, such as Congressman Bachus who has joined me here this morning, and Congressmen Browder and Cramer, who serve with you on this Committee, know the importance of maintaining the quality of UAB's and our Nation's biomedical research programs. We are most grateful for all of their efforts on our behalf.

It was the rapid growth in recent years of our extramural funding awarded on the basis of peer review, and the success of our programs that has generated the need for additional research space and led us to develop plans for an additional biomedical research facility. Unfortunately, the State of Alabama has not been in a position during this period to provide any facilities' funding. As a result, we have raised most of our money for construction, including those needed to maintain our research infrastructure at a competitive level from our reserves, from private money or by borrowing money. From these sources we provided slightly less than one-half of the cost of the new Biomedical Research Building.

During the past 6 years the University of Alabama at Birmingham has invested $208 million in facilities, with $168 million of that being spent in the Medical Center. We think that the federal participation in the biomedical research building will prove to be an excellent investment. We will complete it in January at a cost of $164 per square foot. I believe you will find that comparable lab space at many other universities would cost much more.

Also, research and the Biomedical Research Building will be cost effective. Our average total cost per grant is over $26,000 less than the cost of grants going to the 10 universities with the most National Institutes of Health support. Finally, our audited indirect cost rate is comparatively low, 42 percent.

As a relatively young institution in a State with limited resources and significant numbers of students and graduates from disadvantaged families, we are able to raise from private resources only a tiny fraction of the amounts coming to the most leading research universities such as Johns Hopkins and Harvard. These institutions are able to attract over $100 million or more each year, mount capital drives of a billion dollars or more and often have multi-billion dollar endowments. We do not have that capability.

We believe that there are significant opportunities for our research programs to respond to the Energy Department's scientific research priorities. Secretary O'Leary participated in the dedication of our facility, and at her suggestion we will meet soon with the new Director of the Office of Energy Research to discuss how we can best respond to relevant Department of Energy research programs. Our written submission provides additional details on these prospects as well as several brief observations about the subject of the hearings.

This concludes my statement, Mr. Chairman, and I am ready to answer any questions that you or your colleagues might have. Thank you.

[The prepared statement of Dr. McCallum follows:]

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Statement of Dr. Charles A McCallum D.M.D, M.D.
President of
The University of Alabama at Birmingham
Before The Committee on Science, Space and Technology
U.S. House of Representatives
September 15, 1993

Mr. Chairman, I am Charles McCallum, President of the University of Alabama at Birmingham (UAB). My statement this morning will very briefly summarize some of the more significant points contained in the materials submitted to the Committee on September 3rd. At this time, I would like to ask that this submission be made part of the record of this hearing.

At the outset, Mr. Chairman, we sought federal participation in a new Biomedical Research Building (BRB) in order to assure the ability of our biomedical research programs to respond to national initiatives and, particularly, our ability to contribute to the growing body of knowledge which provides citizens of our country with a high standard of health care. At UAB, we are very proud of our success in competing for research support and the accomplishments of our faculty using the financial assistance provided by the federal government and others. We are anxious and determined to maintain and, in fact, improve our competitive capacity. Among universities, we currently rank 29th overall in the receipt of federal research and development support and 3rd in the Southeast. In biomedical research, we rank 18th in the U.S. among institutions receiving NIH support and our Department of Microbiology, which will occupy much of the new facility, ranks first among all such departments.

The presence of a nationally competitive biomedical research capacity at UAB has had a profound effect on the economy of the Birmingham area and Alabama as a whole. The quality of this research has contributed greatly to the development of outstanding clinical programs at the UAB Hospital. UAB has become the city's largest employer, with an annual operating budget of over $882 million, an annual payroll of about $380.5 million and almost 16,000 employees. We have led Birmingham's transition from a "steel town" to an economy with a balance of health care, biomedical research and biotechnology, engineering, communications, financial services, and manufacturing.

Most importantly, however, research at UAB has had a profound effect on the quality of health care available to Alabama residents, as well as those who travel to our State for the care we can provide. Further, technology and techniques discovered and refined at UAB and students trained at UAB play an important role in the delivery of health care throughout the U.S.

It is not, therefore, surprising that all the members of our Congressional delegation have been strong supporters of UAB and its Medical Center. There is a long-standing tradition in the delegation of putting aside political differences and coming together on matters of major importance to Alabama, particularly in areas where we can truly make a national contribution. This tradition continues today under the leadership of the Dean of the delegation, Congressman Tom Bevill. All of our members, including those most recently elected, such as Congressman Bacchus, who has joined me here this morning, and Congressman Browder and Congressman

Cramer, who serve with you on this Committee, know the importance of maintaining the quality of UAB's and our nation's biomedical research programs. We are most grateful for all of their efforts on our behalf.

It was the rapid growth in recent years of our extramural funding and the success of our programs that generated the need for additional research space and led us to develop plans for this new facility. Unfortunately, the State of Alabama has not been in a position during this period to provide any facilities funding. As a result, we have raised most of our monies for construction, including those needed to maintain our research infrastructure at a competitive level, from our reserves or by borrowing the money. From these sources we provided slightly less than one half of the financing of the BRB.

We think that the federal participation in the BRB will prove to be an excellent investment. We will complete it next January at a cost of $164 per square foot. I believe you will find that comparable lab space at many other universities would cost $250 per square foot or more. Also, research in the BRB will be cost effective. Our average total (direct plus indirect charges) cost per grant from NIH is over $26,000 less than the cost of grants going to the ten universities with the most NIH support. Finally, our indirect cost rate, 42% is comparatively low, as are the components related to administrative and facilities charges.

Private sources accounted for only $500,000 of the $36 million BRB facility. As a relatively young institution in a state with limited resources and significant numbers of students and graduates from disadvantaged families, we are able to raise from private sources only a tiny fraction of the amounts coming to most leading research universities, such as Harvard, Johns Hopkins and Stanford in your own state, Mr. Chairman. These institutions are able to attract $100 million or more each year, mount capital drives of up to $1 billion and often have multi-billion dollar endowments. The federal tax code heavily subsidizes this support, as it should because it reduces the burden on government; however, these tax expenditures are not subject to an authorization process or scientific peer review.

The Committee asked a number of questions concerning our relationship with the DOE, and I am pleased to say that our Facilities Management staff has developed a close and most cooperative working relationship with the Department's Chicago Operations Office. There have been no problems of which I am aware, and I believe that the DOE staff would agree that this is a truly outstanding facility. At the outset, most of the extramural funding for the operation of research programs in the facility will come from NIH. However, we believe that there are significant opportunities for these research programs to respond to the programs of the DOE Office of Energy Research. The Secretary of Energy participated in the dedication of our facility and, at her suggestion, we plan in the near future to meet with the Director of the Office of Energy Research to discuss how we can best respond to relevant DOE research programs. Our written submission provided additional details on these prospects but, I will only mention one, as an example.

The availability of new laboratory space assisted UAB in recruiting a world-class molecular geneticist, accordingly, the Department of Biochemistry changed its name to "Biochemistry and Molecular Genetics". The new Biomedical Research Building will include the laboratory of two senior professors and three recently recruited assistant professors. Some of the research topics that will be of primary concern to these scientists include the following:

- elucidating the role of DNA structure in the regulation of gene expression, focusing on the physical and biochemical basis for the interaction of repressor enzymes that underwind DNA with specific regulatory sequences. These studies are particularly relevant to chromosome rearrangements or damage that might be induced by electromagnetic radiation.

- Molecular mechanisms regulating the transcription of RNA's by RNA polymerase III and the biochemical roles of transcription factors that regulate the expression of these essential genes.

- Studies of genetic recombination and the various genetic and environmental factors that influence the process, including incident electromagnetic radiation.

Overall, the Department has taken the first step in building a strong basic genetics program at UAB and the state-of-the-art space and equipment in the Biomedical Research Building played a key role in allowing us to attract outstanding young faculty. Ultimately, the strength we build in basic genetics will provide the foundation for a program that will bridge basic science to both the human genome project and the current progress in human gene therapy.

Finally, Mr. Chairman, I will conclude by making a few brief observations about the subject of the hearing:

1. We do not see the problem with the Appropriations Committee directing some support to specific projects involving the development of research infrastructure or the conduct of applied research relevant to particular state or regional economic interests, particularly when the research is also a national priority as identified in federal legislation.

2. Requiring a complete authorization process and an attendant peer review process for these kinds of projects would likely work to the advantage of well-established research institutions, particularly those in wealthier states, and could result in an increased concentration of federal research support rather than creating a broader distribution of institutions capable of contributing to the national interest. It would also prevent institutions from taking good, but limited, ideas directly to the Congress and having them considered in an expeditious fashion.

3. In this regard, we would also respectfully suggest that the Committee's complaint about "double-dipping" is somewhat off the mark. The distribution of earmarks is quite different from the overall distribution of federal research support, not the reverse, but different. One reason for this is that not all institutions, including many of the wealthier institutions, seek such support.

4. There are some measures which could be taken to improve the quality of these projects. Requiring recipients to put up significant matching funds from their own resources would ensure an institution's commitment to such ventures. Further, we, for one, would welcome a system of accountability, examining and reporting to someone about the use of this facility.

This concludes my statement, Mr. Chairman, and I would now be happy to answer any questions that you or your colleagues may have.

CHARLES A. McCALLUM, D.M.D., M.D.
PRESIDENT OF THE UNIVERSITY OF ALABAMA AT BIRMINGHAM

Charles A. McCallum, D.M.D., M.D., received his dental degree from Tufts University Dental College, Boston, Massachusetts, in 1951 and earned his medical degree from the Medical College of Alabama in 1957. Dr. McCallum, an oral and maxillofacial surgeon, served as vice president for health affairs and director of the Medical Center at The University of Alabama at Birmingham from 1977 until April 2, 1987, when he was named President of the University of Alabama at Birmingham. He will relinquish his duties as president on October 1, 1993. Dr. McCallum is also professor of dentistry in the department of oral and maxillofacial surgery at the University of Alabama School of Dentistry and professor of surgery in the division of oral and maxillofacial surgery, department of surgery, at the University of Alabama School of Medicine, Birmingham. He served as Dean of the University of Alabama School of Dentistry from 1962-1977.

Dr. McCallum is a former president of the American Association of Dental Schools, the American Board of Oral and Maxillofacial Surgery, the Southeastern Society of Oral and Maxillofacial Surgeons, and the American Association of Oral and Maxillofacial Surgeons. He has served on the National Advisory Dental Research Council of the National Institute of Dental Research and on the American Dental Association's Council on Dental Education and Commission on Accreditation. He has also served as a member of the Board of Directors and Executive Committee of the Council on Postsecondary Accreditation. He is a member of the Institute of Medicine of the National Academy of Sciences and is a past Chairman of the Board of Directors of the Association of Academic Health Centers. He served as a Commissioner of the Joint Commission of Accreditation of Healthcare Organizations from 1979-1991 and served as Chairman of the Board of Commissioners from 1986 through 1988.

Although he has extensive commitments to administration, he still participates actively in teaching and patient care activities.

The **CHAIRMAN**. Thank you very much, Dr. McCallum.

Our procedure will be to hear from each of the witnesses first and then we'll question you as a group.

Our next witness will be Dr. David Gute, who is Interim Director of the Center for Environmental Management, accompanied by Dr. Melvin Bernstein, Vice President for Arts Sciences and Technology at Tufts.

Gentlemen.

Dr. **GUTE**. Good morning Mr. Chairman. We welcome the opportunity to appear before you and the Committee on Science, Space, and Technology.

Before I begin my oral testimony I would like to ask your permission, Mr. Chairman, to have my written statement included in the record.

The **CHAIRMAN**. Without objection, it will be made a part of the record in full.

Dr. **GUTE**. Thank you very much.

I am David Gute, Interim Director for the Center for Environmental Management, or CEM, and Assistant Professor of Civil and Environmental Engineering at Tufts University. I am accompanied by Melvin Bernstein, Vice President for Arts Sciences and Technology of Tufts.

CEM was established in 1984 to develop an innovative and effective multi-disciplinary approach to environmental problems through new initiatives and health effects technology research, policy analysis, education and training, and outreach programs. This testimony summarizes answers to questions submitted to Tufts University by your committee and provides an overview of CEM's programs and projects.

The Center for Environmental Management was created in 1984 through a cooperative assistance agreement with the U.S. EPA to perform multi-disciplinary research, develop educational programs, and assist in the development of policy in the management of hazardous and solid waste and toxic substances in the environment.

Mr. Chairman, with my remaining time I would like to highlight five specific areas of the CEM agenda for your consideration. The first will be a partnership that has evolved over time between CEM and corporate America.

Soon after its funding, CEM expanded its partnership beyond government, leveraging the EPA Office of Research and Development funding to establish a Corporate Affiliates Program. The Corporate Affiliates Program offers the opportunity to enhance the interaction between government, industry, and environmental educators and researchers to help pursue an agenda of enhanced competitiveness.

Between 1986 and 1993, CEM's 20 corporate members have contributed nearly $22 million in multi-year unrestricted funding and support of CEM activities, and I would like at this opportunity to request, Mr. Chairman, that letters of support from two of the corporate affiliate members, Allied Signal and Bristol Meyers Squibb, be entered into the record. These letters also have been faxed to the committee.

The next point I would like to address in the 5 issue areas has to do with regional environmental training. CEM's Asbestos Information Center successfully was awarded EPA funding to develop and implement training for asbestos abatement workers and asbestos inspectors. In addition, CEM successfully competed and was awarded funding to develop a national lead inspector training curriculum.

CEM to date has trained more than 7,000 workers from EPA Regions I and II as certified asbestos and lead paint inspectors and abatement personnel.

Let's turn to the general area of environmental literacy. In 1991, CEM was awarded an Environment and Conservation Challenge Award by President Bush in a Rose Garden ceremony for the Tufts Environmental Literacy Institute, or TELI, a faculty development program that has helped catalyze environmental awareness across the university.

Since it's inception in 1990, nearly 150 faculty from Tufts and 40 other U.S. and international universities, including significant representatives from the Historically Black Colleges and Universities as well as international partners as far as Brazil, have attended a 2-week faculty development program designed to enhance environmental literacy and teaching in a wide variety of disciplines.

The fourth area I would like to draw attention to is international leadership in environmental education. Tufts hosted 22 presidents, rectors and vice chancellors of universities from all over the world at its European Center in Talloires, France, in October 1990. The Talloires declaration, which outlines the role of universities in environmental management and sustainable development has now been signed by presidents from 125 universities in 32 countries and resulted in establishing the University Presidents' Secretariat for Environmental Education and Research at Tufts to inform and support the efforts of the Tallloires signatories in implementing the principles of the declaration. The secretariat is now funded by the John D. and Catherine T. MacArthur Foundation.

The final point I would like to address in my oral testimony has to do with the quality of the relationship that is a reality with the Environmental Protection Agency, and I would like to comment on the importance of the EPA funds as a means of getting many of the programs off and running that have been described in my testimony up till now.

A current example of the closeness of the relationship with EPA is represented by the fact that the agency is interested in exploring the possibility of having Tufts serve as a model for universities currently executing Memorandums of Understanding, or MOUs, with EPA under the Campus Affiliates Program. In this way institutions interested in pursuing research and personnel exchange with EPA could travel to Tufts and familiarize themselves with the procedures that have allowed the full realization of CEM.

In closing, Mr. Chairman, I would like to emphasize that through its partnership model CEM, we believe, is well positioned to link the theory developed through its many projects to practice in corporations, government and nongovernmental organizations. It is our belief that federal investment in CEM is multiplied through its regional, national and international constituencies, and finally I would like to take this opportunity, Mr. Chairman, to extend an invitation to you to visit our campus so that you may personally see the many exciting initiatives underway, and also I would like to request the opportunity to provide additional documentation in support of my testimony.

Thank you.

[The prepared statement of Dr. Gute follows:]

THE
CENTER FOR
ENVIRONMENTAL
MANAGEMENT

Testimony to the Committee on Science, Space and Technology U.S. House of Representatives

Presented by:

David M. Gute, Ph.D., M.P.H.
Interim Director of the Center for Environmental Management
and Assistant Professor of Civil and Environmental Engineering
Tufts University

September 15, 1993

Research • Policy • Education • Outreach

TUFTS UNIVERSITY

Introduction

I am David M. Gute, interim director of the Center for Environmental Management (CEM) and assistant professor of civil and environmental engineering at Tufts University. CEM was established in 1984 to develop an innovative and effective, multidisciplinary approach to environmental problems through new approaches to health effects and technology research, policy analysis, education and training, and outreach programs.

This testimony summarizes answers to questions submitted to Tufts University by Chairman Brown and provides an overview of CEM's programs and projects.

CEM History

The Center for Environmental Management was created in 1984 through a cooperative assistance agreement with the U.S. Environmental Protection Agency to perform multidisciplinary research, develop educational programs and assist in the development of policy on the management of hazardous and solid wastes and toxic substances in the environment. Since then, as a university-wide entity CEM has been able to tap the considerable and diverse resources available at Tufts to focus on:

(a) improved understanding of the health and ecological effects of environmental contaminants;
(b) development of strategies, technologies and policies to avoid, reduce or remediate the environmental impact of pollution and wastes; and
(c) education, training, technology transfer and other outreach activities to assist practitioners and decision makers in government, industry, academia and non-governmental organizations in improved environmental management.

CEM's mission, its scope of activities and its impact on society have evolved and expanded in a number of ways since its inception in 1984. CEM has moved from focusing solely on research to a multi-activity center that trains hundreds of workers and practicing professionals each year, sponsors several major national and international conferences, supports the development of new academic environmental programs, and contributes to the development of environmental policy approaches. CEM's programmatic focus has moved from discrete environmental problems such as hazardous wastes, to an integrated and holistic understanding of how all pollution and wastes impact all environmental media -- the air, water and land locally, regionally and globally.

CEM: A Model Partnership

Soon after its founding, CEM expanded its partnership beyond government, leveraging the EPA Office of Research and Development funding and partnership to establish a Corporate Affiliates Program to diversify its funding and its access to the resources and perspectives of the private sector. CEM has earned continuing support from other EPA offices, regional governments, the United Nations Environment Programme (UNEP), industry, and private foundations. This broad base of funding and diverse perspective has greatly enhanced the quality of CEM and all Tufts' programs. CEM's funding accomplishments include the following:

- CEM has leveraged federal funding to diversify its funding base through partnerships with industry, other government agencies, nongovernmental organizations and foundations. Between 1986 and 1992 CEM received funding from more than 24 sources. In addition to the core funding from EPA/ORD, CEM received separate financial support from eight other EPA offices, laboratories and research centers.

- CEM's Corporate Affiliates Program, an industry membership opportunity, offers a substantive way to enhance the interaction between industry, government and environmental educators and researchers to help pursue an agenda of increased competitiveness through a stronger link between the environment and the economy. Between 1986 and 1993 the program's 20 corporate members contributed nearly $2 million in multi-year, unrestricted funding in support of CEM activities.

Benefits and Impact

Benefits

Benefits of the presence of CEM and the flexibility afforded by stable funding has allowed Tufts' environmental mandate and successes to reach far beyond the immediate institution. While some CEM programs work on a local or regional level, many are national or international in scope. Highlights of the benefits of CEM's presence at Tufts include:

- **Prioritization of environmental programs.** CEM was instrumental in elevating the environment to signature program status at Tufts. The university has demonstrated its institutional commitment to the environment by appointing the first Dean of Environmental Programs (1989); incorporating the study of the environment into the university's mission statement (1989); issuing a university-wide environmental policy (1991); institutionalizing CEM-initiated pollution prevention and education programs such as Tufts CLEAN! and the Tufts Environmental Literacy Institute (TELI); and, serving as an international leader among its peers (Talloires Declaration establishing the University Presidents' Secretariat, October 1990).

- **Enhancing environmental programs.** CEM has enhanced many existing Tufts programs, for example the Urban and Environmental Policy program (UEP) and Environmental Engineering within the Department of Civil and Environmental Engineering, as well as assisting in the development of seven new certificate, undergraduate, and graduate academic programs.

- **Expanded faculty expertise.** Through funding made available by CEM, Tufts faculty have developed strengths in environmental monitoring technologies, effects of toxic materials on human reproductive health, biological markers of cellular damage by toxic materials, risk communication, corporate environmental management and ecological risk assessment. CEM has enabled both young and established faculty to expand their expertise to encompass environmental issues.

- **Increased student applications to environmental programs.** Tufts expanded environmental programs have been acknowledged by students through a sharp increase in applications. For example, the Department of Urban and Environmental Policy increased from 81 applicants in 1981 to 213 students in 1993. The undergraduate environmental studies major, an innovative three-track program with options in policy, science or technology, increased from just over 70 in 1985 to more than 200 students in 1993.

- **Diversity and opportunity.** Programmatic initiatives which reflect Tufts/CEM commitment to diversity and encourage and prepare minority and international students to take leadership roles in the environmental field include the Environmental Science and Management Fellows (ESMF) Program, Minority Summer Intern Program, the Tufts Environmental Literacy Institute (TELI), and the United Nations Environmental Programme (UNEP) Fellows Training Program.

- **Formal and informal networks.** Outreach efforts have resulted in the development of formal and informal networks involving numerous other organizations. For example Tufts plays a leading role or participates regularly in the following: Northeast Hazardous Substance Research Center, Tufts Environmental Literacy Institute Brazilian Consortium, United Nations Programmes for Environmental Leadership in Developing Nations, Greening of Industry Network, and Winrock International Environmental Alliance.

- **Initiating self-sustaining programs.** CEM has seeded projects which are now self-sustaining. For example, in 1988, CEM developed the Environmental Management Institute (EMI), an intensive graduate-level program, with a small amount of seed money from the center's Corporate Affiliates Program. EMI now annually serves 100 practicing professionals in industry, government and non-profit sectors from the region through a tuition-driven program.

- **New technologies.** Many CEM-funded researchers have greatly improved or advanced already existing monitoring and measurement methods. Two have received patents for development of innovative environmental monitoring and pollution prevention technologies:

  - Dr. David Walt, a member of Tufts Department of Chemistry, received Patent #5114864, Fiber optic sensors, apparatus and detection methods using fluid erodible controlled release polymers for delivery of reagent formulation
  - Dr. Ioannis Miaoulis, assistant dean of the Tufts College of Engineering and a member of Department of Mechanical Engineering, received Patent #4991644, Engine preheater process system and has a patent pending for Automobile vehicle auxiliary component pre-heating method and system.

- **Multidisciplinary teams.** CEM has placed priority for the past several years on funding multidisciplinary teams of researchers. With CEM funding, one multidisciplinary team of an ecologist, a physician and a public policy specialist is conducting research into the ecological aspects of deliberate and accidental releases of genetically engineered organisms. The collaborative CEM-faculty research team has recently illuminated categories of frequently overlooked risk on behalf of the U.S. Congress Office of Technology Assessment.

Local, National and International Impact

- **Regional training.** CEM's Asbestos Information Center successfully was awarded EPA funding to develop and implement training for asbestos abatement workers, and asbestos inspectors. In addition, CEM successfully competed and was awarded funding to develop a national lead inspector training curriculum. CEM has trained more than 7,000 workers from EPA Regions I and II as certified asbestos and lead-paint inspectors and abatement personnel.

- **International training.** Through the education of 50 environmental leaders from developing nations in 1991 and 1992, CEM and UNEP have multiplied the environmental capability of 35 developing nations.

- **Conferences.** CEM has encouraged multisectoral communication, collaboration, deliberation and development of new ideas and policies to move society toward an environmentally sustainable path through a series of conferences on topics including:
    - Pollution prevention, (Woods Hole series)
    - Environment and international development (Talloires series)
    - Business and the environment (Greening of Industry Network)
    - Programs in new thinking in economics (Program on Sustainable Change and Development)
    - Environmentally sustainable activities in the northeastern U.S. (Consortium for Regional Sustainability).

- **Environmental literacy.** In 1991, CEM was awarded a Environment and Conservation Challenge award for the Tufts Environmental Literacy Institute (TELI), a faculty development program that has helped catalyze environmental awareness across the university. Since its inception in 1990, nearly 150 faculty from Tufts and 40 other U.S. and international universities have attended a two-week faculty development program designed to enhance environmental literacy and teaching in a wide variety of disciplines. Through the multiplier effect of TELI's approach, TELI faculty have now reached thousands of students with messages about environmental issues.

- **International leadership in environmental education.** Tufts hosted 22 presidents, rectors and vice chancellors of universities from all over the world at its European Center in Talloires, France in October, 1990. The Talloires Declaration, which outlines the role of universities in environmental management and sustainable development, has now been signed by presidents from 125 universities in 32 countries and resulted in establishing the University Presidents' Secretariat for Environmental Education and Research at Tufts to inform and support the efforts of the Talloires signatories in implementing the principles of the declaration. The Secretariat is now funded by the John D. and Catherine T. MacArthur Foundation.

- **Outreach to other academic institutions.** CEM has an international program of outreach to other universities through TELI (for example, the Tufts/Brazilian consortium and Historically Black Colleges and Universities), as well as linkages made by other CEM programs, such as the University Presidents Secretariat, the Greening of Industry Network and the Program on Sustainable Change and Development.

- **Anticipatory research.** CEM has played a major role in the area of anticipatory research, hosting conferences on global climate change and, for the Ecological Society of America, environmental release of genetically engineered organisms.

CEM Quality Assurance Model

CEM has funded more than 150 environmental research, policy, and education projects involving more than 50 faculty from seven of Tufts ten schools. CEM also maintains a small professional staff of in-house policy and education specialists who conduct projects in environmental management policy, as well as develop and implement education and outreach initiatives.

Working with EPA/ORD, CEM serves as a model for university-based environmental centers to provide a unique infrastructure and capability for the U.S. government and industries to build substantive programs addressing issues of the economy and the environment, and international competitiveness. Part of this model relationship with EPA includes establishing a variety of protocols for monitoring the progress and quality of CEM-funded projects, which include:

- **Proposal peer review.** Projects are solicited through an annual ***Program Announcement and Request for Applications*** (RFA). Project proposals are reviewed anonymously by three external peer reviewers not affiliated with Tufts University who are drawn from CEM's 350-member External Peer Review Network. The applications are then examined by the CEM RFA Assessment Panel which makes final decisions based on the criteria stated in the RFA.

- **EPA project advisors.** Every CEM/EPA-funded project is required to have a U.S. EPA Project Advisor. The intent of this requirement is two-fold: to provide each Tufts PI with a link to a colleague in an EPA program office or laboratory and to serve as a resource for our EPA Project Officer. These project advisors work with the Tufts principal investigators to review the project progress, exchange technical information, recommend changes in the scope or direction, and identify areas of future interest to EPA.

- **Quality Assurance Plan.** Another condition of U.S. EPA funding to CEM is the development and implementation of a Quality Assurance Management Plan (QAMP) to ensure the integrity and reliability of the results of EPA-funded projects at Tufts.

- **Regular reporting.** In addition, each project leader must submit quarterly progress reports documenting the project's objectives, milestones activities and results for the quarter and anticipated work for the upcoming quarter.

Conclusion

As one of the leading sponsors and consumers of the environmental R&D initiatives conducted by universities, the federal government has a particular interest in encouraging innovative approaches to developing environmentally sustainable technologies and policies. Federal funding has allowed CEM to become an effective, innovative model for partnerships to explore new paths towards environmental and economic sustainability. The presence of federal funding gives other partners confidence in the long-term viability and likelihood for success of CEM's initiatives.

A December 1992 report of the Carnegie Commission on Science, Technology and Government, ***Environmental Research and Development: Strengthening the Federal Infrastructure,*** set forth a series of recommendations to strengthen and improve the nation's environmental R&D. Among the Commission's recommendations were "... to restructure the federal environmental R&D system and the redirection of many of its programs to a new set of priorities, including global environmental change, sustainable use of resources, and the more subtle, longer-term threats to human health." (Carnegie Commission press release, December 15, 1992)

These recommendations are directly in line with the program areas spelled out in CEM's strategic plan: ecoefficiency and pollution prevention, anticipating future environmental impacts, and motivating environmentally sustainable actions. Through its partnership model, CEM is well-positioned to link the theory developed through its many projects to practice in corporations, government and nongovernmental organizations. It is our belief that federal investment in CEM is multiplied through its regional, national and international constituencies.

BEST COPY AVAILABLE

BIOSKETCHES: TUFTS UNIVERSITY

David Gute, Ph.D., M.P.H.

David Gute is Interim Director of the Center for Environmental Management and an Assistant Professor at Tufts University with appointments in both the Department of Civil Engineering and the Department of Community Health at the medical school. Prior to joining the Tufts faculty in 1988, Dr. Gute served as an Assistant Commissioner responsible for personal and environmental disease risk factor reductions with the Massachusetts Department of Public Health and as an Epidemiologist with the Rhode Island Department of Health.

While in these posts, he oversaw major environmental research efforts including the on-going investigation of childhood leukemia and adverse reproductive outcome in Woburn, Massachusetts and the completed investigation of food chain exposure to PCB's in New Bedford, Massachusetts. His research interests concentrate on the use of available data to delineate groups of people at excess planning of intervention activities. Dr. Gute is an epidemiologist who received his master of public health and Ph.D. from Yale University.

Melvin Bernstein, Ph.D.

Dr. Melvin Bernstein has been Vice President for Arts, Sciences & Technology at Tufts University since 1991. Prior to coming to Tufts, Dr. Bernstein served as Chancellor and Senior Vice President at Illinois Institute of Technology, IIT Center, Chicago from 1990-91 and Provost and Academic Vice President from 1987-1990. Previous to that time, he was Professor and Head of the Department of Metallurgical Engineering and Materials Science and Associate Dean at Carnegie Mellon University. Dr. Bernstein earned his B.S., Master's degree in Metallurgy an Ph.D. from Columbia University.

The CHAIRMAN. Thank you very much, Dr. Gute.

Dr. Bernstein, did you want to add to the testimony that—

Dr. BERNSTEIN. No. I think Dr. Gute has given the complete testimony.

The CHAIRMAN. You're just there to back him up in case he makes any outrageous statements, huh?

(Laughter).

The CHAIRMAN. All right. We'll next go to Dr. Polf, Deputy Vice President for Health Sciences at Columbia University.

Dr. POLF. Thank you, Mr. Chairman. I too would like to ask that the formal statement be entered in the record.

The CHAIRMAN. Without objection, the full statement will appear.

Dr. POLF. Thank you.

Mr. Chairman, Members of the Committee, my name is William A. Polf. I am a senior official of Columbia University responsible in part for the ongoing development of scientific facilities, most importantly the Audubon Biomedical Science and Technology Park where the Center for Disease Prevention will be located.

It is an honor to appear today to describe the Center for Disease Prevention at Columbia Presbyterian Medical Center. In this day of health care reform as preventative medicine becomes increasingly important for the health of our nation, it is even more important that we continue to learn how to detect disease formation, analyze its nature and intervene to prevent its development at the earliest biological stages. When fully operational, the Center for Disease Prevention will provide America with an expanded capability for doing that.

Columbia University's Health Sciences Division is a recognized leader in the Nation's biomedical research system. Just this year, Columbia scientists have made major new discoveries about the chemical and biological effects of cocaine and were founding members of the team that discovered the gene for Huntington's disease, a genetic disorder that is always fatal to those who develop it. These are just two recent examples of research that could lead to methods for preventing devastating medical conditions.

The Center for Disease Prevention was conceived as part of the ongoing development of the Audubon Biomedical Science and Technology Park, which will provide facilities to enable the discoveries of biomedical science to be translated into newly beneficial forms of health care. Audubon is important not only for the health advances it will bring, but also because it is a major urban redevelopment project which will bring new construction, new retail business, new jobs and new economic opportunities to a distressed area of Manhattan that is economically depressed, educationally burdened, and medically underserved. When completed the Audubon Park will house 2500 new jobs.

Research in the Center for the Disease Prevention will hold promise for potentially producing new medical treatments, diagnostics and technologies in such areas as infectious diseases, immune reactions to disease, genetic diseases, and environmental causes of disease. We know, for instance, that environmental agents can play a significant role in genetic malformation, which in turn leads to genetic inbreeding of certain disease capabilities in individuals.

In cancer research, to cite an example, one current line of inquiry at Columbia is investigating the covalent binding of chemical carcinogens to cellular DNA, the building block on which genetic reproduction relies. Through such research we may one day understand how carcinogens from the environment outside the body can affect genetic transmission of the predisposition for cancer from one generation to the next.

The Center for Disease Prevention has been peer reviewed and praised for both its scientific and economic importance. In 1990 the proposed center underwent scientific and technical review by special scientific panels appointed by New York State's Science and Technology Foundation. Proposals were rated on scientific quality, potential technological value, and economic significance. Columbia's project received the highest rating on all three fronts. The foundation proposed the project for State funding, which has been committed.

The State, the City and the university are also financial partners in the overall development of the Audubon Research Park of which the Center for Disease Prevention is an integral component. The total investment to date, including federal support, is more than $68,000,000 dollars. We have sought the help of all levels of government for the project and will continue to do so. We are happy to participate in any process for financing scientific facilities that Congress establishes. We complement the Chairman on his long-standing leadership in addressing the funding needs of scientific facilities.

We are proud of the center and the Audubon project. In providing help in many forms, the Governor of New York, the Lieutenant Governor, the Mayor, our two Senators our Congressional Representatives, our State legislators our local members of the City Council, various leaders of industry, and our own community have been instrumental in making it happen. The benefit will belong to the entire nation.

Mr. Chairman, I would like to submit letters of endorsement from the Governor of the State of New York, Mario Cuomo, the Mayor of the City of New York, David Dinkins, and various leaders of industry who support this project.

[The prepared statement of Dr. Polf and letters, plus the prepared statement of Dr. Eaton follow:]

STATEMENT

OF

DR. WILLIAM A. POLF
DEPUTY VICE PRESIDENT FOR HEALTH SCIENCES
COLUMBIA UNIVERSITY

BEFORE

THE COMMITTEE ON SCIENCE, SPACE, & TECHNOLOGY

U.S. HOUSE OF REPRESENTATIVES

ACADEMIC EARMARKS, PART II

SEPTEMBER 15, 1993

Statement on behalf of Columbia University

Dr. William A. Polf
Deputy Vice President for Health Sciences
September 15, 1993

Mr. Chairman, members of the committee:

My name is William A. Polf. I am a senior official of Columbia University, responsible in part for the ongoing development of scientific facilities, most importantly the Audubon Biomedical Science and Technology Park where the Center for Disease Prevention will be located. I have been at Columbia for 13 years, and have been privileged during that time to work with representatives of government to find ways in which Columbia and the public sector can be partners for the public good.

It is an honor to appear today to describe the Center for Disease Prevention at Columbia Presbyterian Medical Center. In this day of health care reform, as prevention medicine becomes increasingly important for the health of our nation, it is even more important that we continue to learn how to detect disease formation, analyze its nature and intervene to prevent its development at the earliest biological stages. When fully operational, the Center for Disease Prevention will provide America with an expanded capability for doing that.

Columbia University's Health Sciences Division is already a leader in the nation's biomedical research system.

Columbia Presbyterian Medical Center is the oldest medical center in the country, with strength ranging from leadership in basic science to the most advanced clinical care. Just this year, Columbia scientists have made major new discoveries about the chemical and biological effects of cocaine, and were founding members of the team that discovered the gene for Huntington's disease, a genetic disorder that is always fatal to those who develop it. These are just two recent examples of research that could lead to methods for preventing devastating medical conditions.

The Center for Disease Prevention was conceived as part of the ongoing development of the Audubon Biomedical Science and Technology Park, which will provide facilities to enable the discoveries of biomedical science to be translated into newly beneficial forms of health care. Audubon is important not only for the health advances it will bring, but also because it is a major urban redevelopment project which will bring new construction, new retail business, new jobs, and new economic opportunities to a distressed area of Manhattan that is economically depressed, educationally burdened, and medically underserved. When completed, the Audubon Park will house 2,500 new jobs. Audubon is only one of several initiatives the medical center is undertaking in partnership with the city, the state, the federal government, and community organizations to address some fundamental problems of Washington Heights. For that reason, the community of Washington Heights has strongly embraced it.

Research in the Center for Disease Prevention will hold promise for potentially producing new medical treatments, diagnostics and technologies in such areas as infectious diseases, immune reactions to disease, genetic diseases and environmental causes of disease. The Center will enhance cross-disciplinary scientific interaction, which is the most effective mode for focusing a variety of research capabilities on the ever-elusive target of disease formation. We know, for instance, that environmental agents can play a significant role in genetic malformation, which in turn leads to genetic inbreeding of certain disease capabilities in individuals. In cancer research, to cite an example, one current line of inquiry at Columbia is investigating the covalent binding of chemical carcinogens to cellular DNA, the building block on which genetic reproduction relies. Through such research, we may one day understand how carcinogens from the environment outside the body can affect genetic transmission of the predisposition for cancer from one generation to the next.

The Center has been peer reviewed and praised for both its scientific and economic importance. In 1990, the proposed center underwent scientific and technical review by special scientific panels appointed by New York State's Science and Technology Foundation. Proposals were rated on scientific quality, potential technological value, and economic significance. Columbia's project received the highest rating on all three fronts. The Foundation proposed the project for state funding, which has been committed.

The state, the city and the university are also financial partners in the overall development of the Audubon Research Park, of which the Center for Disease Prevention is an integral component. The total investment to date, including federal support, is more than $68 million. Audubon will provide a means for smoothing and, hopefully, shortening the path from bench to bedside in medical research. Patients--people who need medical care--will be the beneficiaries. Because of our location in an area of urban economic distress, Audubon also offers one new form of economic regeneration for our cities. Scientific advances at Columbia and Audubon can underlie the development of new medical technologies that can, in turn, lead to new business development and biotechnology industry in the city. Area residents in need of jobs and job training will benefit. Later this month, for instance, the Audubon project will provide the initial awards of financial assistance in a special program to help community residents training to be laboratory technologists, training that will enable them to develop careers in hospitals, laboratories and the biotechnology industry.

We have sought the help of all levels of government for the project, and will continue to do so. We are happy to participate in any process for financing scientific facilities that Congress establishes. We compliment the Chairman on his longstanding leadership in addressing the funding needs of scientific facilities.

We are proud of the Center and the Audubon project. In providing help in many forms, the Governor, the Lieutenant Governor, the Mayor, our two Senators, our Congressional representatives, our State legislators, our local members of the City Council, various leaders of industry, and our own community have been instrumental in making it happen. The benefit will belong to the entire nation.

STATE OF NEW YORK
EXECUTIVE CHAMBER
ALBANY 12224

MARIO M. CUOMO
GOVERNOR

March 4, 1991

Dear Dr. Pardes:

I am pleased to add my endorsement to the proposal for Federal funding for a facility at Columbia University to house disease prevention research. Biomedical research is increasingly important to the health and well-being of the Nation. Columbia is a leading world center of biomedical research, and the establishment of a disease prevention research facility there would constitute a prudent and worthwhile investment by the Federal government. People will benefit directly from the new treatments and therapies that result from the research in the facility.

The location of the facility in the Audubon Research Park across the street from Columbia-Presbyterian Medical Center will foster the development of interdisciplinary efforts among scientists and clinicians. As you well know, New York State, in partnership with Columbia and the City of New York, has invested in the development of the Research Park and continues to work with Columbia on the effort. This major urban development undertaking will be both a source of life-saving treatments and a much needed economic boost for an economically-deprived area.

I am pleased to add my endorsement to your efforts.

Sincerely,

Mario M. Cuomo

Herbert Pardes, M.D.
Vice President for Health Sciences
Dean of the Faculty of Medicine
Columbia University Health Sciences
630 West 168th Street
New York, New York 10032

THE CITY OF NEW YORK
OFFICE OF THE MAYOR
NEW YORK, N.Y. 10007

February 19, 1991

Herbert Pardes, M.D.
Vice President for Health Sciences
Dean of the Faculty of Medicine
Columbia University Health Sciences
630 West 168th Street
New York, NY 10032

Dear Dr. Pardes:

Thank you for sending me the outline of the proposal for a Center for Disease Prevention at Columbia University. The project as you describe it will have a very beneficial impact on the effort the City is undertaking with Columbia and the State of New York to develop the Audubon Research Park.

I share your belief that more effort should be put into disease prevention, both to reduce the human suffering that disease causes and to lower the costs of treatment. The Center will advance those efforts and I endorse it enthusiastically.

Sincerely,

David N. Dinkins
MAYOR

Bristol-Myers Squibb
Pharmaceutical Research Institute
P.O. Box 4000 Princeton, NJ 08543-4000 609 921-4487

Edgar Haber, M.D.
President

January 25, 1991

Herbert Pardes, M.D.
Vice President and Dean
Columbia University Health Sciences
630 West 168th Street
New York, NY 10032

Dear Herb,

Thank you for sending me the proposal for the Center for Disease Prevention. I find it an exciting venture that will address a significant unmet need. Unfortunately it had been the tradition of medical schools to focus on treatment rather than prevention and I am most pleased that you are in the process of rectifying a significant deficiency in both research and teaching.

The research will undoubtedly lead to discoveries which Bristol-Myers Squibb, as well as other companies, will find potentially valuable in developing new pharmaceuticals. The Center will enhance the attractiveness of the overall development of the Audubon Research Park. I am pleased to add my endorsement.

Sincerely,

Edgar Haber, M.D.

EH/tm

AMERICAN HOME PRODUCTS CORPORATION
685 THIRD AVENUE
NEW YORK, N.Y. 10017-4085
(212) 878-5008

JOHN R. STAFFORD
CHAIRMAN OF THE BOARD
AND CHIEF EXECUTIVE OFFICER

February 1, 1991

Herbert Pardes, M.D.
Vice President and Dean
Columbia University
Health Sciences Division
630 West 168th Street
New York, NY 10032

Dear Herb:

I was pleased to learn of Columbia University's $1 million planning grant for a new Center for Disease Prevention. Based on my review of the program outline you were kind enough to share with me, I offer my wholehearted endorsement of this project.

In particular, the four areas of research focus you contemplate for the Center are quite appropriate, given their potential to offer long-term cost and quality-of-life benefits. Such efforts are essential in dealing with the related issues of access, cost and quality of health care.

Moreover, the Center represents a critical link in Columbia University's commitment to its community. Such tangible expressions of support must be recognized and supported, as the City and State of New York seek to attract industry and individuals to the area and maintain the region's pre-eminent position in health care.

The planning grant you have in hand is an encouraging start, and I am confident of the University's success in securing funding for completion of this facility.

With best wishes,

Sincerely,

Jack

JRS/ds

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Pfizer Inc
235 East 42nd Street
New York, NY 10017-5755
Tel 212 573 3116

William C. Steere, Jr.
President

January 24, 1991

Dr. Herbert Pardes
Vice President and Dean
Columbia University
Health Sciences Division
630 West 168th Street
New York, NY 10032

Dear Dr. Pardes:

I am happy to endorse Columbia's proposal to build a center for disease prevention research on the site of the Audubon Research Park.
The idea is very good, and the reconstruction of the neighborhood surrounding Columbia-Presbyterian will benefit.

I think this investment in biomedical research would be a very wise investment for the federal government to make at this point, particularly as America must be increasingly careful to protect key areas of economic strength. This country is still the world's leader in biomedical research, and programs such as the one you outline - housed in a research facility - will help protect our position of leadership. As a country, we simply cannot allow another strategic economic resource to be lost; we've lost too many others. Those of us in the pharmaceutical industry understand how important it is to preserve and expand America's biomedical research base. Your proposal deserves support.

Let me know how things proceed.

Sincerely,

William C. Steere

William C. Steere, Jr.

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SANDOZ PHARMA LTD
CH-4002 BASLE/SWITZERLAND

SANDOZ

DR. MAX LINK
CHIEF EXECUTIVE OFFICER

DIRECT DIAL 061 324 20 55
FAX 061 324 27 72

Dr. Herbert Pardes, M.D.
Vice President for Health Sciences
and Dean of the Faculty of Medicine
College of Physicians and Surgeons
Columbia University
630 West 168th Street

New York, N.Y. 10032 /USA

January 29, 1991

Dear Herb:

We understand Columbia's need for new science facilities for research in disease prevention and are happy to support your efforts. The need for the research is clear. Many benefits to the health of the nation and the world will undoubtedly result from the science conducted in the new facilities, and throughout the Health Sciences Center of Columbia.

We are, as you know, entering a new era of discovery in the understanding of the nature and causes of many diseases. The science being conducted at Columbia is opening new doors for the development of innovative treatments and pharmaceuticals. The new facilities you propose will be a key component of the ongoing effort. You are quite right to be pressing for their construction now.

Sincerely,

M. Link
Max Link

Warner-Lambert Company
201 Tabor Road
Morris Plains, NJ 07950
201 540-3404

Joseph D. Williams
Chairman and
Chief Executive Officer

WARNER LAMBERT

January 28, 1991

Dr. Herbert Pardes
Vice President for Health Sciences
Columbia University
College of Physicians and Surgeons
630 West 168th Street
New York, NY 10032

Dear Herb:

The outline of the proposed Center for Disease Prevention looks exciting. It will be a major step forward in research, and in the development of the Audubon Research Park. I have no doubt that our scientists here will find work interesting and valuable.

We know at Warner-Lambert that disease prevention research will be increasingly important in coming years. Columbia is wise to be putting an emphasis in this area. The health of people in New York City and throughout the country and the world will benefit. I am happy to add my endorsement to your effort and will be happy to help you with the proposal as it moves forward.

Sincerely,

jsb

Written Testimony of

Dr. Harvill C. Eaton

Vice Chancellor
Office of Research and Economic Development
Louisiana State University
Baton Rouge, Louisiana

For the Record of a Hearing on

Academic Earmarks, Part II

Committee on Science, Space, and Technology

U.S. House of Representatives
2318 Rayburn House Office Building
Washington, DC
September 15, 1993

Information Concerning the DOE-Funded Project: Construction of a Building to House the Center for Coastal, Energy, and Environmental Resources Louisiana State University

Mr. Brown and Committee members, I appreciate the opportunity to submit written testimony. Because of the expense, I am unable to testify in person, but hope that this written response to your questions is adequate. Should you require additional information or clarification, I will promptly respond in writing.

Need for the Project

The economy and culture of Louisiana are based on the abundant renewable and non-renewable resources present in the state, especially in the southern or coastal portion, an area that is undergoing the most rapid rate of land loss in the United States. The wetlands and state coastal waters of Louisiana have been a principal supplier of oil and gas resources to the nation and the Louisiana OCS has produced more than 90% of oil and gas derived from the U.S. offshore area. These same habitats yield fisheries, fur, and waterfowl resources that rank among the top three states. Research that fosters a continuation of the production of needed domestic energy supplies without compromising the integrity of the critical living resources and coastal ecosystems is a high priority for both Louisiana and the nation.

Louisiana State University (LSU) has developed widely recognized research expertise in the fields of fisheries, coastal ecology, wetland biogeochemistry, coastal processes, energy resources, environmental aspects of resource development, habitat reconstruction, and waste disposal. The application of this research expertise to resource management conflicts, habitat modification resulting from global change and man's activities, and to planning for sustainable development of our resources is of critical importance.

The Center for Coastal, Energy, and Environmental Resources (CCEER) at LSU contains the 12 research institutes and staff of 250 that have contributed more to the understanding of the critical resources and environmental systems in the central Gulf of Mexico than any other university-based program. Through its graduate programs, CCEER has also produced many of the scientists that work in the government agencies and industries that operate in the Gulf area. With a state appropriated budget of nearly $5 million and federal and other outside funds in place exceeding $25 million, the success and stature of the CCEER research program are nationally and internationally prominent.

The laboratories, offices, classrooms, and shops that support the research carried out by CCEER are inadequate for the work ahead. The facilities are three to five decades old, scattered about the campus, and are not suited for meeting the growing needs of the research programs necessary to gain a sufficient understanding of the complex resources and environmental systems to manage them wisely. The CCEER research and academic programs require better facilities to support a program at least as productive per dollar invested as any of the federal laboratories.

Through its normal capital outlay planning process the university identified the need for a new building to consolidate and upgrade the CCEER research capabilities as a high priority. LSU seeks funding for projects of this type from a variety of sources and informs those that assist in efforts to improve our programs and facilities about our needs. Those included are the state legislature, foundations, private industry, individual contributors to LSU, and our congressional delegation.

Project Benefits

The CCEER building will provide modern research laboratories, support space, offices, and classrooms for the most comprehensive coordinated research effort in the state, and perhaps the nation, dealing with the complex interactions of coastal, energy and environmental renewable and non-renewable resources. It will provide administrative efficiency by consolidating most CCEER units in one area and improve research output by providing state-of-the-art facilities suited to expanding program needs.

CCEER is committed to seeing that the results of its research are applied to dealing with resources and environmental issues important to the people of the state of Louisiana and the nation. This is accomplished in part by exposing the 160 students in CCEER graduate degree programs to research results. CCEER gets directly involved in real-world resources and environmental management efforts by providing interdisciplinary teams of scientists to work with environmental management programs such as the Barataria-Terrebonne National Estuary Program and the extensive coastal restoration program being carried out under the federal Coastal Wetlands Planning, Protection, and Restoration Act. CCEER is also deeply involved in energy resources exploration research, energy policy and taxation issues, and development of innovative hazardous waste treatment and disposal methods. These applied programs directly benefit the economy, environment, and citizens of the state and are supported by a strong basic research effort within CCEER and other LSU units.

The new facility will greatly improve the ability of CCEER and LSU to deliver useful research products that lead to economic development. New waste treatment and disposal processes, including oilfield wastes, better fisheries management programs, improved coastal restoration techniques, and more effective wetland management methods are among the products that have directly benefitted the economy.

DOE Protocol

DOE, in its Chicago Office, has a staff dedicated to managing construction projects funded by the agency. Procedures and specifications for contracts, building plans, monitoring of progress, accounting, and inspection are well established and routine. These are being applied to the CCEER building project.

HARVILL C. EATON

Dr. Harvill C. Eaton is Vice Chancellor for Research and Economic Development at Louisiana State University in Baton Rouge, Louisiana. LSU is the largest university in Louisiana with over 25,000 students. LSU faculty and students are engaged in research in a broad spectrum of fields, ranging from astrophysics, chemical engineering and geology to environmental resource development and agriculture. The University annually attracts approximately $50 million from government and industry to fund new research projects. Because of its excellence in research, LSU is one of only 70 universities in the USA to carry the designation Research I by the Carnegie Foundation.

Dr. Eaton is the chief research officer at LSU. His office is responsible for the administration of the approximately $50 million extramurally funded research budget and over $15 million in State appropriated funds. Other responsibilities include coordination of the Legislative agenda for research, all federal Congressional initiatives, faculty consulting activities, the University's international program, and technology transfer. The office is also charged with linking LSU research in partnership with government and industry, stressing the role of the University in boosting the local and state economy. Eaton is convinced that pro-active, high-quality research at Louisiana State University directly affects the economy of the state: by discovery, by educating its citizenry, and by attracting the kind of business development that will characterize Louisiana for the next century.

Dr. Eaton assumed the research vice chancellorship in 1990. Prior to that he served as Associate Vice Chancellor for Research, and was in on ground-floor activities in the acquisition of the University's $16.7 million supercomputer and the establishment of the $25 million Center for Advanced Microstructures and Devices. A native of Nashville, Tennessee, he joined LSU as an assistant professor of engineering in 1976. He served as associate dean in engineering from 1986 until 1989, when he joined the Office of Research.

Vice Chancellor Eaton has served as a visiting scientist in the physics department at the Chalmers University of Technology, Goteborg, Sweden, and was a research participant at Oak Ridge National Laboratory. He also has served as a technical advisor for the U. S.

Environmental Protection Agency's superfund technology evaluation programs. He is the author of over 40 refereed research papers, and is on numerous national and regional panels and committees.

Dr. Eaton received his bachelor's and master's of science degrees in engineering from Tennessee Technological University in 1970 and 1972, respectively; and received a doctoral degree in materials science from Vanderbilt University in 1976. He is a member of numerous professional and scientific societies and fraternities such as Sigma Xi, American Society for Mechanical Engineers, Field Emission Society, American Ceramic Society, and Theta Tau National Professional Engineering Fraternity (formerly a national officer).

He is a member of numerous national boards and committees including: institutional representative to the Universities Research Association (URA), Southeastern Universities Research Association (SURA), Universities Space Research Association (USRA), Houston Advanced Research Center (HARC); member of the HARC President's Council, SURA Materials Science Council, Oak Ridge Associate Universities (ORAU) Chief Research Officers Council, Council on Graduate Education and Research. He has served as a consultant to the National Science Foundation, the Arkansas Department of Higher Education, the New Jersey Department of Environmental Quality, the Environmental Protection Agency, and several corporations.

His participation in local and state civic organizations include: member of the board of directors for the Baton Rouge Bank, the Louisiana Arts and Sciences Center, Greater Baton Rouge Leadership Alumni, Inc., the Boy's and Girl's Club, the United Campus Ministry, and the Louisiana Business and Technology Center; a Trustee of the University United Methodist Church; Rotary Club; 1991 Class of Leadership Greater Baton Rouge; 1992 Class of Leadership Louisiana; and a member of the Mystic Krewe of Louisianians (Washington, D.C. Mardi Gras).

July 29, 1992

The CHAIRMAN. The letters will be made a part of the record, and we thank you for your testimony.

Let me make a few short questions. Then I'll turn to Mr. Walker. First of all, each of you has made a convincing case for the high quality of the work that your institutions are doing and for your need for support from the Federal Government. Just approximately, or briefly, tell me, Dr. Polf, does Columbia have an endowment?

Dr. POLF. Yes, they do.

The CHAIRMAN. And approximately how large is that endowment?

Dr. POLF. It is in excess of $1 billion.

The CHAIRMAN. And Tufts?

Dr. GUTE. Slightly more than $200 million.

The CHAIRMAN. Alabama, of course, being a public institution probably doesn't have an endowment.

Dr. MCCALLUM. Yes, we do. We have an endowment of $102 million that's built up over the last 10 years.

The CHAIRMAN. Yes. Dr. McCallum, did—is this situation with regard to the Medical School the first time that you have sought earmarks for the purpose of facilitating funding of your facilities.

Dr. MCCALLUM. We have sought various ways of trying to fund our facilities, and I would like to enlarge on that, if I might, Mr. Chairman. We have taken advantage of those opportunities that have been available to us.

In the past 3 years, as we constructed a cancer facility, we applied to the National Cancer Institute for monies for a facility for animals. This was funded in the amount, on a peer review basis, of $800,000.

The CHAIRMAN. In this case you went directly to the agency with responsibility for funding such facilities.

Dr. MCCALLUM. Right. Wherever there is an agency that has funds available, we have always sought to obtain money from those agencies.

You mentioned the National Science Foundation's Facilities Act that I think is just excellent. We applied for an enlargement of our Biology and Chemistry and Mathematics Departments under that agency. We were awarded, again on a peer review basis, $1 million for that facility.

That facility will house a lot of the efforts of assisting minority programs with historically black institutions to get more people from those institutions into science and engineering, which is a big thrust of the National Science Foundation.

Additionally, we also went recently to the National Science Foundation for monies for the renovations of our chemistry laboratories. Again, this was a peer review application, and I am happy to say we were successful.

In the case of biomedical research facilities, there was a time when Congress had monies set aside for that, and we did, in the sixties and early seventies, compete—and compete very successfully—on a peer review basis for those facilities.

We did fund locally 200,000 net square feet of space, of research space. That was constructed with money borrowed by the university, some of which also came from the private sector that gave us money to assist in the borrowing of that money.

In the case of the biomedical research facility that I have discussed, there was no such facility or area that you could go to to ask for support. It was on this basis that I approached directly the Alabama delegation.

At that time there was discussion in Congress about the possibility of setting aside money for the construction of biomedical research facilities on a peer review basis. I believe that effort, and I think that had your great support, was not successful.

The CHAIRMAN. Unfortunately.

Dr. MCCALLUM. And we wished it had been. And it was on this basis that we continued to say to our delegation there is a great need not only at Alabama but in this country for monies to be made available for the funding of the infrastructure of research buildings, equipment.

The United States has become preeminent in the whole area of biomedical research and biotechnology, and I think it's the one area we have a great advantage, and I hope that your leadership, the leadership of this committee and Congress, there will be made available monies for institutions to come in and compete on a competitive basis for funds to maintain that superiority in biomedical research which we think is so very, very important and has an impact on agriculture and many other areas, because what we're talking about is research at the cellular and the molecular level.

The CHAIRMAN. We couldn't agree with you more, Dr. McCallum.

Now, tell me, and I am going to ask each of you this question. You saw the chart up there that shows that the Appropriations Committee has earmarked close to $800 million in the last year, a total of two and a half billion in the last 10 years. At the same time they have not funded the competitive facilities program in either the NIH or National Science Foundation.

Do you see any indication that there is not enough money available to fund these competitive programs? Is there—Dr. McCallum, I want you to say specifically.

In view of the fact that $2 billion—million dollars have been spent on earmarks, do you see any reason why we couldn't fund a $250-million-a-year competitive grant program already authorized?

Dr. MCCALLUM. I think—you know, I think that is a decision that's up to Congress. I would—it would appear there certainly is some money there.

I would like to make one request, though. That if that money does become available, and if there can be money for biomedical research infrastructure, that some consideration will be given to either a set aside at the National Science Foundation—I am not saying earmarking it, but setting aside monies for certain institutions that do need help that may not be able to compete with others.

Now, this has been done previously through the EPSCOR program, and I think in its wisdom Congress was very appropriate in doing that. In encouraging projects to develop competitive research, the National Science Foundation does this.

And I hope that there would be that opportunity for a set-aside for those institutions that have special needs because I think it is important. And I do hope that we will have available the money that you suggested, and I know you have worked hard for—for this area.

The CHAIRMAN. All right. Dr. Gute, does this evidence indicate to you that there is a shortage of money that couldn't be made available for an already authorized competitive program?

Dr. GUTE. Given the fact that your question gets to university-wide concerns, I would like to defer to Dr. Bernstein on this answer.

Dr. BERNSTEIN. Well, I think the issue is correct. The opportunity to be able to establish nationally-based facility programs is an area that we all support, it really comes to the issue of the broad range of projects that are being supported through earmarking.

The Center for Environmental Management is not a facilities program. It's not a research program only. It is a broad-based program involved with education, outreach, involvement with the broad community, and those programs suffer, have suffered and may continue to suffer by a lack of opportunities to be able to compete for specific programs within agencies.

But certainly we would support, as I believe most universities would support, broad-based programs created through Congress.

The CHAIRMAN. Dr. Polf?

Dr. POLF. Yes, we would concur. That Columbia when categorical grant programs exist and which we can compete on any basis for scientific facilities we do so, and are often successful, and would happily support that. And if Congress decides in its wisdom to establish that process we'll be happy to participate.

The CHAIRMAN. Thank you. Now, all of you have presented convincing evidence that your institutions are institutions of the highest merit, highest quality, outstanding, amongst the top in the United States, and yet one of the arguments that we hear in support of earmarking is that this is the way you redress the disadvantage that the poor and the deprived and the unsuccessful have against the rich and the successful like you all represent.

How valid is that argument.

Dr. GUTE. Well, I wish we were that rich and successful. I know certainly from Tufts' vantage point the leveraging that activities like CEM have provided for us have helped us improve the position, competitiveness and stature of the institution considerably. We have been able to continue to be more successful in attracting industrial support, foundation support, other government support.

So from our viewpoint these enabling kinds of funds that the—CEM has given the university have been of immeasurable help to us.

The CHAIRMAN. Well, I am not arguing that money is immeasurable help to any institution. I am asking if you are a deprived institution that can't successfully compete for these funds, which, as you well know, are in very short supply.

Dr. GUTE. Well, Tufts is an institution that has a number of opportunities, as you have pointed out, and a number of challenges. I think as you heard from—when made the request for the level of endowment, Tufts has a $200 million endowment, which is a quite modest endowment by most standards. We are primarily and very proud to be known as a teaching university that does research. So our research effort is always in support of teaching, and therefore we don't have the broad infrastructure and opportunities that larger universities may have.

Dr. McCALLUM. Mr. Chairman, do we think we could compete at Alabama? Absolutely.

The CHAIRMAN. You know you can.

Dr. McCALLUM. I really do. And we would like to have that opportunity every time. We do it in our research grants. We feel the project that was funded that was written in the bill by Congress, had it undergone peer review, would have been very successful. That is not attempting to be egotistical, but we think that we have high quality and we think we have shown we're competitive and will continue to be.

The CHAIRMAN. Dr. McCallum, what would you have done if you had not been gifted with one of the most distinguished and influential Members of Congress as chairman of the subcommittee that allocates those funds?

Dr. McCALLUM. I would have still attempted to try and tell our delegation of what the needs are of research universities and the needs for infrastructure and the funding of it and finding a mechanism to do it.

The CHAIRMAN. Dr. McCallum, have you used—retained the services of a lobbyist in connection with this?

Dr. McCALLUM. No.

The CHAIRMAN. Dr. Gute, have you retained the services of a lobbyist?

Dr. GUTE. Yes, we have.

The CHAIRMAN. And would you care to divulge the name of the lobbyists and the amount of money you pay them?

Dr. GUTE. Yes. We have previously supplied to your committee a full response with regards to that question. The name of the firm is Cassidy & Associates, and the details of that, of those payments are included in question two to the—of the 23 questions that we submitted to the committee.

The CHAIRMAN. Yes, I am aware of that. I just want to know if you would care to reveal it publicly in the full light of the television.

Dr. GUTE. Yes. We reported payments over the period 1984 through 6/30/93 of $3,162,056, Mr. Chairman.

The CHAIRMAN. All right. What was the maximum yearly amount that you paid?

Dr. GUTE. Maximum yearly amount was $357,000, occurring in '91 and '93.

The CHAIRMAN. Dr. Polf, how about Columbia?

Dr. POLF. Yes, Mr. Chairman. Columbia has a variety of ways of representing itself in Washington. It has a well-established and quite professionally conducted office of government relations. It has a number of ranking university officials, including the president and members of the board of trustees and people like myself who are somewhat knowledgeable of government who work actively on the project.

It is a member of any number of associations who assisted. It also has counsel who are expert in the ways of Washington. And yes, we do have counsel on this project.

The CHAIRMAN. I am going to yield to Mr. Walker for any questions he may have.

Mr. WALKER. Thank you. Thank you, Mr. Chairman.

Just to follow through on what the chairman was asking here, Columbia University also retains Cassidy & Associates?

Dr. POLF. Yes, that's right.

Mr. WALKER. And how much are you paying them annually?

Dr. POLF. We pay—on a monthly basis, we pay a retainer of $10,000 a month for lobbying services.

Mr. WALKER. Okay. And you are continuing to pay that at the present time?

Dr. POLF. Yes.

Mr. WALKER. Would that indicate that you are at the present time seeking earmarks in the Congress?

Dr. POLF. We have requested additional funds for the upcoming year.

Mr. WALKER. In the form of earmarks, you have requested those of the Appropriations Committee at the?

Dr. POLF. Yes, we have.

Mr. WALKER. Have you ever come to this committee to talk to this committee about the needs that you have in the scientific research area or any other authorizing committee to talk to them about the needs that you have so that they could be appropriately authorized rather than simply earmarked?

Dr. POLF. No, we have not.

Mr. WALKER. At Tufts, you indicated the highest payment was $357,000 a year. In 1992 you, in fact, paid $360,000.

Dr. GUTE. I am sorry. My error, Mr. Walker.

Mr. WALKER. And the last payment that we have there indicates that that was on 6/30/93, which would indicate that you are continuing your lobbying activities this year. Are you looking for earmarked funds this year as well?

Dr. GUTE. We have requested similar funds; yes, sir.

Mr. WALKER. And you have requested those of the Appropriations Committee?

Dr. GUTE. Yes, sir.

Mr. WALKER. And you have not—have you sought money in the authorizing process? Have you come to this committee or any other authorizing committee seeking to identify your needs to those committees?

Dr. GUTE. We would appear before any committee that would have interest in hearing our requests for such funds. But we have not to date.

Mr. WALKER. Well, I understand that. But you are actively seeking money in those areas, and what you are telling me is you're actually seeking it from the appropriators but you have not bothered to come to the authorization process. Is that—

Dr. GUTE. I would continue to say that we would—we would be very, we'd welcome the opportunity to appear before the other committees that you have described. We have not to this date done so.

Mr. WALKER. Well, but do you wait for an invitation from the appropriating committee to show up there?

[Laughter].

Dr. GUTE. We, again, are engaged in an activity of attempting to keep a program that we're very proud of viable and ongoing, and we would appear before any committee that would be of interest, have an interest in allowing us to continue this program.

The CHAIRMAN. Would you yield to me?

Mr. WALKER. Sure. I would be happy to yield to the Chairman.

The CHAIRMAN. Just elaborating on that. Are you acting in the way that you are on the advice of your lobbyist?

Dr. GUTE. No, sir. I am testifying in terms of the information as I know it as interim director of the center.

The CHAIRMAN. What advice does your lobbyist give you?

Dr. GUTE. To appear here promptly, tell the truth, be candid and as forthcoming as possible.

The CHAIRMAN. Is that worth $30,000 a month?

[Laughter].

Dr. GUTE. Given current inflationary practices, yes, I think it's—

Dr. POLF. Mr. Chairman, if I could respond to that question as well. We seek—we have the same practice of following the advice of those who are more knowledgeable and expert in these ways. Among those are counsel, but also the Members of Congress that we, that represent New York also offer us advice and we tend to follow their advice on when and where to appear. And that tends to determine our behavior.

Dr. GUTE. Mr. Chairman, I might also add that we have attempted to work with our delegation as fully as possible, and again, and similar to the Columbia response, we also follow the advice of our delegation.

Mr. WALKER. I'll be happy to yield to the gentlelady for—

Ms. ESHOO. Thank you very, very much.

Following up on what my colleague, Mr. Walker, was just—the points that he was making, can you assure us or the appropriate federal agencies that any dollars that are used to pay lobbyists are not federal tax dollars?

Dr. POLF. Absolutely.

Ms. ESHOO. Can you demonstrate that very clearly?

Dr. POLF. Yes.

Ms. ESHOO. I would like to add to this that—something that I am very sensitive about, and that is that our great universities and colleges in our nation are, I think, really the treasures in the crown of this country, and I think that we need to be very careful about always the tone of these discussions.

It seems to me that this is a really convoluted process, and I salute my, our Chairman for conducting this hearing. I think that, most frankly, that you are following and participating in a process where the Congress has designed it, and it's a system that doesn't speak well for itself or anyone that's in it.

And so some of the questions and the things that have come out so far in this hearing, really you're moving along and doing what everybody else does, but it doesn't mean that what everybody else does and what you do is really okay.

So I am looking forward to repairing this. We have to have a system, and I am new in Congress, a system here where we shape policy and then the dollars are attached to it. It's convoluted. It's on its head. People are, obviously, running after the scarce dollars and the policy lags behind, and that's not anything that anyone can defend very well.

So I salute our Chairman for holding these hearings. I wanted to be sure that you could demonstrate that you are not using any tax dollars to lobby. That's very important. I mean that's something that—and I would like to see how that is demonstrated, and not just moving around in the margins of the books.

The CHAIRMAN. Mrs. Eshoo wants to remind you it's illegal also, so be careful how you keep your books.

[Laughter].

Dr. POLF. We know, sir.

Ms. ESHOO. I would hope that it's illegal, but, you know, I mean if we have this kind of process here where everyone scoots off to the appropriators we don't get to do any—that they don't come to us in terms of authorizing because there isn't anything in it for them, it diminishes what we do here.

What are we doing here? Why do we have this Committee? Why do we spend all the hours trying to come up with policy? So, thank you very much for yielding.

Mr. WALKER. I want to thank you for your statement.

And the most convoluted part of the process is as the dollars become scarcer the earmarks become more pronounced. I mean that's really the convoluted nature of the process. As the dollars become scarcer the competition and the review of it has in fact become less, and that I think is a real concern for this Committee as it's becoming for other committees.

Dr. McCallum, I really hadn't asked you—are you, and you may have answered this to the Chairman a moment ago. Are you in the process of seeking earmarks this year as well?

Dr. MCCALLUM. Not that I know of, to be very honest with you. I would like to expand on that a little bit. We have had somebody appear before this committee from the University of Alabama at Birmingham. Dr. Gerald Pohost came before this Committee when you were considering magnetic resonance imaging, and he's Professor and Chair of our Department of Cardiology. And it is used as a diagnostic tool, and you asked him to appear before this committee or he requested to testify relative to the value of that technology.

And we would be happy to appear any time that we can share any expertise we might have with this committee in their considerable responsibilities.

Mr. WALKER. Well, I thank you very much.

Let me go back to those institutions that have indicated that they are in fact seeking earmarks in fiscal 1994. Can you tell me the amount of the earmark that Columbia is seeking and also the amount—then I'll come to Tufts. Can you tell me the amount of the earmark you're seeking?

Dr. POLF. Yes. We're seeking $10 million.

Mr. WALKER. $10 million. From what committee are you seeking that? From which of the subcommittees?

Dr. POLF. From the committee that has jurisdiction over the EPA.

Mr. WALKER. Okay. And, so that is in the—in that particular appropriation bill that you are seeking it. Okay.

Dr. POLF. No, sir. I don't know that it's in there. I said we are seeking it.

Mr. WALKER. No, but-- I understand. And in the case of Tufts, what amount are you seeking?

Dr. GUTE. I can speak with only reference to CEM, and we would be seeking funding in the neighborhood of $3.2 million, which was the total that we had received last year.

Mr. WALKER. Dr. Bernstein, are you aware of any other monies that Tufts is seeking?

Dr. BERNSTEIN. There may be within the rest of the university, but not within my purview.

Mr. WALKER. And which of the Committees are you seeking that money from?

Dr. GUTE. I believe through the Appropriation Committee responsible for EPA.

Mr. WALKER. For EPA.

Let me ask each of you a general question. Would you all be comfortable with a process that ended up with 100 percent of the money for federal research being done through an earmark process?

Dr. McCallum?

Dr. MCCALLUM. The answer is no.

Mr. WALKER. Okay. Dr. Gute?

Dr. GUTE. Well, the answer is no for us as well.

Mr. WALKER. Dr. Polf?

Dr. POLF. I—yes. The answer is obviously no. But I would also hope that Congress would continue to revise its ways as it finds it needs to make these appropriate decisions and continue to be generous in supporting scientific facilities.

Mr. WALKER. Well, then in what way do we sort this out? I mean, obviously, all of you would be uncomfortable if those of us who are Members of Congress took it upon ourselves to decide scientific priorities not based upon any evaluation other than the fact that we can grab the money from somewhere and put it into some favorite institution that we might happen to designate.

You know, I can imagine why anybody would be uncomfortable with that. I'd certainly be uncomfortable with it. I have science professors who are rolling over in their graves thinking I am having anything to all to do with science policy. So the last thing they need is me determining what the science priorities should be for spending.

But the fact is that if you're uncomfortable with it as a general policy that would cover all research, then how would you suggest that we are to sort through this that decides that there are a handful or there are 10 percent or 20 percent of the universities that deserve to get money through this without having an appropriate scientific evaluation?

Dr. McCallum?

Dr. MCCALLUM. I just am not knowledgeable enough about all of the intricacies of Congress to tell Congress how they should handle it. I think that that has to be left with those whom we elect as our representatives.

Mr. WALKER. But shouldn't—

Dr. McCallum. We are pleased that you are looking at it. But I would like to reiterate one point I made previously. That I do think that there are instances that it's appropriate to set aside a certain proportion of money for certain initiatives such as we have in EPSCOR, for some of our Biomedical Minority Research programs that I think are very important, the set-asides that are for certain national initiatives, whether it be the area of AIDS research or women's initiatives. Again, I still would support that those set-asides would be on a basis of a competitive nature as well—

Mr. Walker. And you make a good point, and I think that that's something we struggle with in this committee. I mean we have, in fact, done a number of those set-asides down through the years. If you look at NSF and some of the other programs, EPA research, we have decided, for instance, to do set-asides that will go to smaller institutions. We have decided to do set asides that would go to instrumentation, or for schools that specialize in education rather than research.

I mean we have heard the testimony about the need to spread the funding and have attempted in a policy way to address some of those kinds of concerns only to find out that then the money from those—maybe this is too harsh a term—but gets ripped off in the earmark process, which means that less funding is available for those policy-directed programs because the money was diverted to go to earmarks.

And so it ends up being a problem where the policy-driven decisions that we have made to try to address some of those concerns are in fact undermined by an appropriations process that uses then some of the money to earmark rather than directs it to where it is being awarded competitively.

Does that give you concern?

Dr. Gute. Mr. Walker, there is another thing that might be offered here as well. Dr. McCallum has spoken about the fact that this type of funding mechanism might be appropriate for certain types of institutions. It also might be appropriate for certain types of problems.

I am speaking with reference again from my perspective as affiliated with CEM, which is inherently a multi-disciplinary activity. It has been the tradition of many peer-reviewed programs to be very tightly discipline specific, that do not look with a great deal of favor on truly multi-disciplinary research.

So what I might urge upon you is the fact that there may be particular problem areas or content areas appropriate for handling in this nature.

And again, I would defer to the Congress as the best way to attempt to craft what that response is. I am just pointing out another area that could be appropriate.

Mr. Walker. Well, I think you make a valid point, except that in your multi-disciplinary approach in CEM, if I understand the answers to the questions that you submitted back to the Committee, your multi-disciplinary approach is multi-disciplinary so long as Tufts continues to hold onto the money.

I mean, if I understand, what you say here is that the only people that participate in the research grants programs are people who are tied to a Tufts' faculty or staff member as the principal investigator. That the multi-disciplinary approach never gets beyond the doors of Tufts.

Dr. GUTE. The only prescription we have is that the principal investigator has a Tufts' affiliation. There are other colleagues at other universities that programs can work with.

But the other thing to underscore is that multi-disciplinary work can take—can be undertaken within the confines of a university such as Tufts admirably well. We have a vet school, a medical school—all the campuses are involved in these types of research activities.

Mr. WALKER. But I would say to you that our experience here is that when you talk multi-disciplinary that one of the things that it usually does is means that you utilize the best expertise from the discipline from around the country. That two multi-disciplinary approaches are involved not with something which is insular, but which is very broadly based.

It appears as though from your answers here that while it may be multi-disciplines, while there may be a number of disciplined involved within your university, the fact is that as you award outside grants, those grants are outside only in the sense that there are some outside participants that can come in. But unless there's a Tufts' person directly tied to it than the awards can't be made.

Dr. BERNSTEIN. Well, perhaps I can just amplify on that a bit. The Tufts' program is broadly based not only in terms of multidisciplines across science and engineering, but also as to whether it is research or public policy or education and outreach.

Much of the research goes on within the university particularly because we are focusing also on educating students. We were interested in providing opportunities for undergraduates and graduate students.

However, the other parts of the program, the outreach programs, the Tufts' environmental literacy program, a large number of public policy issues which are carried out by CEM staff at the request of the EPA are carried out much more broadly than that. We draw on all the expertise across the country for those.

Mr. WALKER. But the bottom line is that last year you got about $2 million for research activities and the only people who could apply for that were Tufts faculty members. Is that correct?

Dr. BERNSTEIN. In conjunction—as long as the Tufts faculty person or staff member is a principal investigator there's no other restriction. And we do have people from other universities involved.

Dr. POLF. Mr. Walker, I would say that the—first of all, Columbia would be entirely comfortable with a national peer review process for selecting scientific facilities for construction, not unlike the model for awarding research grants, if Congress decides to do that, and funding the facilities programs you have referred to certainly would be one way to do that, and we would be happy to participate in that.

I don't—I think we would do very well in it as well. I don't think that would necessarily expand the number of schools that would receive facility funding because of necessity the facility funding would be limited even if it incorporated all money that was available. And when you are building a facility, as we know, we are not talking about research grants, which may be only a few thousand dollars. We are talking about the need to put together a facility budget of a substantial amount.

Because of that we uniformly approach facility funding by looking for partnerships among levels of government. All of our projects include usually both city and State funding, and as a matter of fact, only recently in the Audubon project any federal funding, as well as university funds and gift funds that we are actively trying to raise.

There is not—just using the Audubon project as an example, these are extremely complex projects. They have many facets to them. The enter disciplinary nature of the science is just one. It would be hard, frankly, to create a categorical program that encompass the entire needs of a project like Audubon, and I think that's probably true of the other projects as well.

And while I am not saying as a goal that wouldn't be a good thing, and we would support it, at the same time I do think in overall policy terms it would be difficult to define. You do have a difficult problem and you're struggling with it very well.

Mr. WALKER. Well, let me—and the Chairman's been generous with the time and I will finish up with this. But just on the point that you have just made, what I have heard here today from each of you, I mean you're talking about very complex projects that have a whole variety of aspects to them.

It seems to me that it's pretty much of an ad hoc and almost precarious existence for long-term, complex projects to have to come to Congress every year and rely upon the good will of some sponsor in the Appropriations Committee to find a place for an earmark down in some report in a bill.

I mean—I guess the first question is, I mean do you feel the precarious nature of that when you have not been locked in by policy and are instead dependent upon that sponsor getting the job done?

And secondly, how, given the nature of your projects, can you depend upon that? You know, do you have alternative plans? If all of a sudden the Appropriations Committee doesn't get the job done and the report doesn't contain your language, what's your alternatives for those very important and complex projects?

Dr. POLF. We try to revise them and adapt them to the financial realities that face us.

Mr. WALKER. True of Tufts too?

Dr. GUTE. It's entirely true. We have found that our ability to cooperate with EPA throughout the years in terms of ensuring that our mission at CEM is very coincident with EPA's overall mission, hopefully, ensures us of continued funding. But if funding were not to appear this year it would produce the financial realities as described by Columbia.

Mr. WALKER. Dr. McCallum?

Dr. MCCALLUM. The same. And I think that evidence of that is each year as you go in on a renewal for a research grant on a peer review you may not be funded, and that's a chance you take.

And you have a commitment to people, and that means you have to make the necessary adjustment. So that there is that inherent danger even under a peer review process.

Mr. WALKER. Sure. And it's one of the reasons, though, why we would like to get some longer range funding, so that as we implement policy that we could assure people that they would have a spending plan for a period of time rather than even having the peer review cancel them out after a short period of time.

But I thank you very much. Your testimony has been very helpful.

The CHAIRMAN. Thank you, Mr. Walker.

I am going to have to excuse myself for just a very brief period of time, and I am going to ask Mr. Fingerhut if he would take the chair in my absence.

Mr. FINGERHUT. [presiding] Thank you, Mr. Chairman.

Mr. Minge, do you have any questions? You were here next, I am told.

Mr. MINGE. I do not—I do not have any questions at this time, Mr. Chairman.

Mr. FINGERHUT. Thank you.

Mr. Becerra?

Mr. BECERRA. Thank you, Mr. Chairman. I do have a few questions.

Actually, before I begin with some questions, I do want to say they—I did want to thank the Chairman for convening this particular type of hearing. I think it's very important that we do expose for the public's consumption what we do with some of our money here in Congress. Especially those of us who are freshman members are very anxious to let the public see more of this.

And I do understand the predicament of those of you who are here in the panel testifying. You are doing nothing more than playing by the game and the rules of the game as they are set by Congress. So I suspect that those of us who have to raise money to run for office also sometimes feel somewhat reluctant to have to go out there and raise dollars in substantial amounts. But that's a part of the game right now in Congress, and the only way to get elected is to have some money to be able to campaign.

So I suspect those of you who are seeking funds find that you can go out there and seek some earmarked dollars and you do the same. Not that it is necessarily the best way or the right way to do things, but it's out there and I suppose you want to do the best thing you can for your institution. And I do hope we change the process.

Let me ask each of you if any of you approached the—you may have answered this already, but in case you did not—if any of you approached or your institutions approached the authorizing committees that have jurisdiction over the types of projects that have been funded with these earmarked funds, if any of you approached the authorizing committee as well as the Appropriation Committees during the process?

Dr. POLF. No, we did not.

Dr. GUTE. No.

Dr. MCCALLUM. Well, we have, but not for the particular biomedical research facility that was funded that we talked about today.

Mr. BECERRA. So for this—

Dr. McCallum. We have presented testimony in the past relative to the need for facilities to support the research within universities.

Mr. Becerra. But, Dr. McCallum, specifically on the issue of the facility that was funded, you did not?

Dr. McCallum. No.

Mr. Becerra. Did any of you engage in any consultation with the relevant agency in preparing your university's proposal for the earmarked funds?

Dr. McCallum. Our proposal was developed for the biomedical research facility by the faculty and by—at the University of Alabama at Birmingham and then presented to the delegation.

Mr. Becerra. And the funding for that facility comes from which particular agency?

Dr. McCallum. That comes from the Department of Energy.

Mr. Becerra. And did the faculty within the university engage in any consultations with the Department of Energy's representatives?

Dr. McCallum. Not that I know of, until after the bill was passed by Congress authorizing the commitment of that money. Then we worked with the Department of Energy's Facility Planning in carrying out the construction contract.

Mr. Becerra. But prior, during the actual preparation of your proposal and—

Dr. McCallum. Not to my knowledge.

Mr. Becerra. Okay. So there was no consultation with Department of Energy as to what would be done through this proposal, how it would work, how the agency would implement it?

Dr. McCallum. Well, it indicated that there was—the proposal indicated how that this would be carrying out research of interest to the Department of Energy.

Mr. Becerra. No, I am asking—I know the proposal was probably specific, but I am asking whether or not there was any consultation with anyone within the Department of Energy?

Dr. McCallum. Not that I know of.

Mr. Becerra. Okay. Same questions.

Dr. Gute. With regards to that question, we have responded in some detail to a similar question in written responses in that in 1984 when Tufts received an initial planning grant to begin the activities that are now known as the Center for Environmental Management there was consultation with EPA.

Mr. Becerra. Let me—let me ask you to stop for just a second, Dr. Gute. You received a planning grant. Prior to receiving the planning grant for this particular project did you consult with the relevant agency?

Dr. Gute. That extends well prior to my tenure at Tufts. But it is my understanding that that type of discussion was held.

Mr. Becerra. Dr. Bernstein, do you happen to know?

Dr. Bernstein. I wasn't there at the time either, but that's my understanding also.

Mr. Becerra. Could you provide the Committee with the exact response to that, whether in fact it was true? You say it's your understanding. I suspect that means it's your belief but you're not certain.

Dr. GUTE. Correct.

Mr. BECERRA. Can you provide the Committee with the information on whether or not there was any consultation with the—which is the relevant agency, by the way?

Dr. GUTE. The Environmental Protection Agency.

Mr. BECERRA. So with EPA, was there any consultation prior to 1984 before the receipt of this planning grant? If you can provide the response to that to the Committee, I would appreciate that.

Dr. GUTE. Fine. Thank you. We shall do that and enter it into record. What's the length of closing of the record?

Mr. BECERRA. Two weeks.

Dr. GUTE. Two weeks. Thank you.

Mr. BECERRA. Was there any formal consultation, and can you go into detail on any consultation? You were talking about the planning process in 1984 and having received some monies.

What type of consultation may have occurred subsequent to the receipt of that particular planning monies?

Dr. GUTE. Subsequent to the receipt.

Mr. BECERRA. Well, you've mentioned that you were not around before 1984.

Dr. GUTE. Right.

Mr. BECERRA. So I suspect you can't talk about what may have taken place before 1984—

Dr. GUTE. Right.

Mr. BECERRA. —with the agency.

Dr. GUTE. The—

Mr. BECERRA. Unless you want to take a shot at it.

Dr. GUTE. Sure. No. The level of interaction with EPA, I think one way of looking at that would be to review the nine separate cooperative agreements that again have been executed in terms of the specific principles that EPA in conjunction with Tufts puts into that cooperative agreement.

A cooperative agreement allows for there to be certain agency responsibilities as well as an institution like Tufts, a set of responsibilities, and those through the 9 years of the center's existence, the focus of center activities, the focus of center programing has turned as EPA's mission has turned. So I think the tenor of those discussions and negotiations, I think one useful record for that is the amendments to the cooperative agreements that we have concluded on a yearly basis with the Environmental Protection Agency.

Mr. BECERRA. Who have been the major contact representatives for EPA with the university?

Dr. GUTE. The project officer for our center is Darwin Wright.

Mr. BECERRA. Can you spell the name?

Dr. GUTE. Darwin Wright—W-R-I-G-H-T.

Mr. BECERRA. And Mr. Wright is still the person that's the main contact individual?

Dr. GUTE. Yes.

Mr. BECERRA. Mr. Polf? Dr. Polf?

Dr. POLF. Yes. The—we did not have—we have not previously, to my knowledge at least, at the Health Sciences Center, we have not previously worked with EPA on a project of this sort before this year and did not consult the agency before the appropriation was made.

In the process of talking with the Appropriations Committee, the members of our congressional delegation who were interested in this project did, in fact, review with us the significant ways we felt that this project would help enhance the mission of EPA, and so we had that communication. And, of course, we are not privy to any communication that might have occurred within Congress or between Congress and agencies.

Since the appropriation was made I can only say that the EPA has been wonderfully professional and diligent and extremely competent in working with us. They have a very good grant review and project review process. We have submitted the material they have requested.

Officials at the EPA have visited Columbia, have seen the site, have had briefings on the project. They have indicated that they intend to continue to do that, which we're delighted by. And that they have also worked with us to institute a reporting system to stay in touch with the project according to the canons that they have to meet.

So our experience in working with EPA has been that they are a very solid, professional agency that knows what they're doing and are doing a very good job for you.

Mr. BECERRA. And who is their principal contact person that works for the EPA?

Dr. POLF. At Columbia? There's actually three of us. One would be me. The other would be Dr. Sohn, who is the head of our Office of Grants and Contracts, and Jesus Rivera, who is our Vice President for Facilities.

Mr. BECERRA. And on the EPA side who are the representatives that you work with?

Dr. POLF. The name is Mr. Swanhorst.

Mr. BECERRA. Swanhorst?

Dr. POLF. Yes.

Mr. BECERRA. Can you spell that?

Dr. POLF. S-W-A-N-H-O-R-S-T.

Mr. BECERRA. Do you know what his title is?

Dr. POLF. I can probably find it in my records. I don't know immediately.

Mr. BECERRA. Is he in the policy area within EPA or is he in the construction area of EPA?

Dr. POLF. I honestly don't know, sir.

Mr. BECERRA. This is a gentleman you work with closely on your project?

Dr. POLF. Well, I have it in my records. Yes.

Mr. BECERRA. Okay. Let me ask the three of you, or four of you a question with regard to the agency and its support. I suspect from the answers that I have received I know the answer, but just in case.

Did any of you have the agency's support—EPA, Department of Energy, NASA in any case—prior to submitting your proposal to the Congress for earmarked funds?

And I suspect since Alabama did not consult with the authorizing *committee it probably did not—and it did not consult* with the agency in advance there obviously would be no support in advance. Tufts?

Dr. GUTE. Could you please repeat the question? I am sorry.

Mr. BECERRA. Did you have the agency's support—EPA, I believe I believe you said it was. Right? Did you have the EPA's support for your proposal prior to getting or receiving the funds that were earmarked through Congress?

Dr. GUTE. Approval—

Mr. BECERRA. No. Support.

Dr. GUTE. Or support. Support indicated in what way?

Mr. BECERRA. Well, in anyway did the EPA say to Congress or members of the appropriating committee, yes, we support the project for which Tufts seeks earmarked funds?

Dr. GUTE. I understand—it's my understanding that support for CEM has in some instances appeared in the EPA budget and then has been excised by OMB.

Mr. BECERRA. Okay. Can you provide us with that information?

Dr. GUTE. I have no written information to support that.

Mr. BECERRA. So you're speculating at this stage whether or not there was any type of—

Dr. GUTE. It's my understanding. That is correct.

Mr. BECERRA. And the understanding comes from where?

Dr. GUTE. Really comes from conversations that I have had with the prior director at CEM.

Mr. BECERRA. And who was that?

Dr. GUTE. Anthony Cortese. C-O-R-T-E-S-E.

Mr. BECERRA. And when did you have those conversations with Mr. Cortese?

Dr. GUTE. As recently as yesterday in preparing for our testimony here today.

Mr. BECERRA. Okay. Columbia?

Dr. POLF. No, we did not have prior agreement. I should also say that Mr. Swanhorst's title on the application is FSMD in the—in Engineering, Planning and architecture.

Mr. BECERRA. So he's in the construction area.

Dr. POLF. I guess that's what that means. Yes.

Mr. BECERRA. Not in the policy area of EPA which decides which projects it might necessarily fund?

Dr. POLF. No.

Mr. BECERRA. And, Mr. Chairman, if you'll indulge me for just two more questions. And this is a hypothetical, and I hope you find your way to answer it.

If the relevant agency, EPA, Department of Energy, NASA, whichever agency it might be, were to determine that earmarked projects fall low in its priority within the scope of all its particular activities, do you believe earmarked projects should be—or do you believe that the earmarked projects should preempt or in some way supersede agency-derived priority projects?

Dr. McCallum?

Dr. MCCALLUM. Could you repeat that again for me?

Mr. BECERRA. Sure can. I sure can.

If the relevant agency—EPA, NASA, Department of Energy—were to determine that the earmarked projects, any earmarked project, falls in low priority within the scope of all its particular activities, do you believe that this particular earmarked project should preempt or in some way supersede agency-derived priority projects?

Dr. MCCALLUM. I feel that that would be something that should be determined by the agency under the authority that they are given by Congress. If they are given that right of peer review for such projects, for setting the priorities by themselves, then I feel that we would have to respect that.

Mr. BECERRA. So you generate a second question. Do you believe Congress should give the agency the priority, or the option to determine priority?

Dr. MCCALLUM. I am not sure that that is something that I am in a position to respond to.

Mr. BECERRA. Well—

Dr. MCCALLUM. Because I think that—I am not familiar with the workings and the rules of Congress sufficiently enough relative to their relationships with agencies and the responsibilities of those agencies to Congress.

The CHAIRMAN. Would the gentleman yield to me very briefly?

Mr. BECERRA. Yes. Sure.

The CHAIRMAN. Doctor, I have been puzzling over why EPA has been funding hospital construction, and yours is not the only one. Could you cite any legislation that gives them the authority to build hospitals, rather than NIH or Health and Human Services which are charged with hospital and health matters?

Dr. MCCALLUM. I don't know that the EPA has funded—

The CHAIRMAN. Department of Energy is what I am—I should have, if I have misstated myself.

Dr. MCCALLUM. Well, this is a biomedical facility, it is not a hospital, and it is basic research as it relates to the organisms and the cellular level that are impacted by energy and by chemicals.

The CHAIRMAN. Well, we understand that there is a relationship. You know, everything is connected to everything else. I asked if you could cite any specific authority that in their organic legislation that gives them the right to build hospitals, or to build medical centers?

Dr. MCCALLUM. I don't know.

The CHAIRMAN. I don't either.

Now, just one other small point that may have already been covered, but you had originally asked for help in building a human genome center, and the Department of Energy does have a role in human genome matters, by Act of Congress.

But you no longer consider this a human genome center. This is a biomedical center, basically; is that correct?

Dr. MCCALLUM. Right. There are some areas that do relate to that human genome project within it because there are genetics in it. We originally testified before the Committee in 1988. I did not—

The CHAIRMAN. Yes.

Dr. MCCALLUM. But Dr. Claude Bennett did. Subsequently, we elected not to move forward for requesting funds for the funding of a human genome project or facility.

The CHAIRMAN. The way I understand that, and it's not to derogate the significance or the importance or the priority of what you have done, but the point is you originally asked for money to do one thing, you ended up doing something at least slightly or perhaps largely different and there was no congressional review of that, was there?

Dr. MCCALLUM. Well, we did make the request and this was written into a bill, if I remember correctly, by the Congress, was signed off by Congress and the President, and it was—

The CHAIRMAN. All earmarks are signed off on by the president and approved by Congress. Whether we like them or not, that's what happens.

Now, one final question—and I beg the indulgence of my colleagues—what are you going to do when you no longer have the chairman of that subcommittee?

Dr. MCCALLUM. We're going to continue to compete at a national level for support of our research facilities and our research endeavors.

The CHAIRMAN. Thank you.

Mr. BECERRA. If I can return then to the question with regard your particular opinion, and you mentioned that you would leave it up to Congress whether or not there should be any latitude within the agency to decide which projects are priority projects and whether or not earmarked funds should be allocated if in fact the project for those earmarked funds happens to be low on the agency's priority. And you mentioned you would rather leave that to Congress.

I would ask you just again to give me your own particular opinion, given that you are familiar with the process, at least to the degree that you have sought and received funds from Congress through earmarked dollars and you do participate through your efforts with the agency in some of its activities.

And I would ask you to give me your own opinion whether or not it's something that we necessarily can implement with here given our procedures, but your own opinion on whether or not the agency should be allowed the latitude by Congress to allocate it's dollars based on what it believes should be its priorities.

Dr. MCCALLUM. I support the area of hopefully permitting the agencies to have a peer review process as it is in the National Institutes of Health for awarding research funds and facilities, et cetera, under the constraints that I previously mentioned; that I hope that there would be certain set-asides for certain special areas, and I think that that is very important.

Mr. BECERRA. And I get the sense then that what you are saying is try to provide the agency with enough latitude.

Dr. MCCALLUM. Right.

Mr. BECERRA. Thank you. The same preliminary question.

Dr. GUTE. Well, I can speak to the issue of the Center for Environmental Management. We would, frankly, be disappointed that after a number of years of working very closely with the EPA and in a cooperative agreement where the goals are set conjointly and they have significant oversight that they would decide then that this program is no longer of high importance in terms of their priorities.

Mr. BECERRA. So let me stop you there because as I believe you responded EPA was not necessarily familiar with the guts of this particular project that was funded at Tufts and is now perhaps implementing on its side the program as a result of the earmarked dollars and the requirements through Congress.

But my question, and I'll repeat it to you, is if in this case EPA were to determine that the earmarked project, your project, fell low in its priority within the scope of all its activities, do you believe that your particular project should preempt or supersede any agency-derived priority projects?

Dr. GUTE. Well, perhaps, if I can just continue I think I will address that.

Mr. BECERRA. If you could answer the question that I posed—

Dr. GUTE. Sure. Absolutely.

Mr. BECERRA. —and then, of course, you can continue on.

Dr. GUTE. I'll be glad to because I think we have—you raise the issue of how this program began in 1984 which we are—which is somewhat different than the fact that each year we provide a new proposal to the EPA which is established on its merits, working cooperatively with EPA. So each year then, a decision is made whether we should go forward. And if, indeed—and those are programs which are developed relative to the EPA's changing mission.

So, and if indeed they felt that this program no longer meets their mission, as I said, we will be disappointed but we would accept their judgment.

Mr. BECERRA. Dr. Bernstein, let me then change the scenario. Let's not talk about your particular project. Let's talk in general terms then.

Again, if the agency had a menu of projects before it, some of those being earmarked projects, some of those being agency-derived projects, and it decided that the earmarked projects were at a low priority level within the agency's purview or determination of necessity, do you believe the agency should be required to fund earmarked projects?

Dr. BERNSTEIN. Again, the agencies that I am familiar with and in fact have been involved with as—on their outside advisory committee, agencies request a broad variety of information about trying to set agendas in research, development, teaching, and the like, and from that devise a policy, which I am sure they work in close contact with Congress and others. If, indeed, there are activities which do not fall under that mandate, I think it's within the agency's prerogative to help make that decision.

Mr. BECERRA. Okay. Dr. Polf?

Dr. POLF. My sense, obviously—EPA is the granting agency, and if it was decided by EPA that they weren't going to fund a project that was within their legal responsibility and their right to do that, it wouldn't seem to me there would be a lot that we could do about it.

Mr. BECERRA. Well, let's assume that the project is within its purview, legally or otherwise, but the difference is it wasn't agency-derived, it was foisted upon it by Congress.

Dr. POLF. My sense is, and it's just my sense of the way our system of government operates, that a clear and unambiguous statement of legislative intent by Congress it is very difficult for an agency to not accede to, particularly if that statement of legislative intent is a spending priority that Congress which controls our budgeting and appropriating process in this country has said it would like to see done.

It seems to me that within the tradition and the legal structure of congressional oversight of government, and particularly of agency operations, that clearly an unambiguous statement by Congress that it wishes a project to be done would be very hard for an agency to say that other priorities should remain not withstanding.

I would like, if I may, just to pursue the question that Chairman Brown asked a little bit about the agencies involved in these. I don't know the authorizing general statute for the Department of Environmental Protection well enough, but it would seem to me logical that within its congressionally derived authorization that environmental effects on the health of individuals would in fact be a major concern that it would have as an agency. And so that in terms of intent, the Congress gave EPA in setting it up then in operation, it would seem to me that a project like ours, for example, would be a logical—have a logical connection to the mission of the agency.

I would also say that again going to the complexity of disease research, the complexity of science and the complexity of these big projects, there are many other agencies I could say the same thing about.

Mr. BECERRA. And, Dr. Polf, I don't think any of us are necessarily questioning the merits of the projects. I think we're just trying to find out the process.

So if I can just summarize—I know I have to stop. It seems that your answer is very similar to Dr. McCallum's original answer, and that is that the prerogative is that of Congress.

Should then Congress also provide the agency with the prerogative of saying that if in fact this is a low priority the agency should decide which projects to fund?

Dr. POLF. If Congress gives—and again I, just looking at the appropriations process, depending on how clear and in what form the direction is given to the agency, if Congress gave that discretionary authority to the agencies it would be difficult for anybody to object to that it would seem to me.

Mr. BECERRA. Thank all of you for your answers. And thank you, Chairman, for the indulgence of time.

Mr. FINGERHUT. I suspect the next time the chairman turns over the gavel it will be to someone who wields a heavier gavel.

Mrs. Morella?

Mrs. MORELLA. Thank you.

In the interest of time, I'll be mercifully brief. But I would like to nominate Congressman Becerra to be the Inspector General for this committee on academic earmarking.

[Laughter].

Mrs. MORELLA. He did a splendid job with names and questioning.

But as somebody who has helped to send our nine kids through universities, who taught at a university, whose husband is general counsel of a university—one of the children went to Tufts—I care about higher education and the integrity of research. I give you that as a backdrop.

However, I also share the concerns that I have heard expressed by this committee in terms of this whole problem of academic earmarking. I think I hear that you do, too.

First of all, you begin to wonder when you look at lists whether or not Cassidy & Associates and some of these other firms might well be giving grants. Maybe they should be in the grants-giving business themselves to universities.

But I am curious about the genesis of this. How does it come about? Do you go to a lobbyist who goes to you and says, "Gee. You really need to have representation in Congress. " Do you then say, "Yes, we really could use this for an environmental project, biomedical project. What can you do for us?"

Is that how it starts? How do you know about this process? Do they suggest? Do you suggest? Could you give me a little insight into the genesis of the request that is made to delegations or to individuals on the Appropriations Committee to get this going? Any one of you.

Dr. GUTE. Well, the relationship that Tufts has predates my coming to the university, so I can only speculate. I know the—as most organizations, we make use of a wide variety of professional consultation whether it's legal, real estate, and whether it is also how one—how can one understand better the Washington environment and the local environment.

Tufts does not maintain an office in Washington as many universities do. We are not part of some of the larger consortia of research universities which are also represented, and I suspect, and again this is well before I came to the university, is that there was an opportunity to be able to gain some expertise about looking for establishing worthwhile projects and establishing a proper means for being able to work with the congressional delegation and with Congress in general.

Mrs. MORELLA. Would any of the rest of you? Dr. McCallum, would you like to comment?

Dr. MCCALLUM. Yes. As I indicated earlier, that this request came directly from the university to the delegation. We do not use a firm to represent us in Washington, and lobbyists. We have an individual that is in the office of the president, Mr. Bill Croker, that handles our governmental relationships and deals with a lot of issues as they relate to Washington. But we do not

directly.

These projects come out of the faculty and looking at our strategic plan in the university, and then we took this directly to our congressional delegation.

Mrs. MORELLA. And then they suggested a particular route for it.

Was it brought to them because you thought it linked up to the Federal Government, or you just went to them for help?

Dr. MCCALLUM. We went to them for help. And we have been encouraging them for years to, hopefully, set money up for research facilities and the research infrastructure to continue to support this, and I hope that will be forthcoming.

Mrs. MORELLA. I wonder if any of you have looked to going through it without the academic earmarking process, going by—you know, forgetting authorization and going right to appropriators?

Have you thought about doing it through, for instance, CRADAs?

As the discussion went on, it appeared to me that you do link up with federal agencies in some of these projects, and perhaps with the private sector in terms of other companies that might fulfill it. Thinking of now the human genome, et cetera.

Have any of you done that or have you felt that this was an easier route?

The benefit of a CRADA, although it maybe harder to get, and you can't do it through an appropriator who is going to add it, tuck it into the budget, is that you may have the kind of continuity that Mr. Walker questioned earlier, which I think is so shortchanging the American taxpayer because your resources, the frustrations that occur because you may have it just for one year. So it seems to me that route has many benefits to it in the long range aspect of a project that's willing.

Dr. POLF. We do seek those funds, and I would say that the process that we go through at Columbia is that we don't seek support from public sources, meaning from either the city, State or Federal Government, for projects that don't in our judgment have a clear public purpose that is somewhat larger than our generalized public purpose of being an institution of education and research. There are many projects that go on at the university that we don't make that judgment about, so as a result we don't seek public funding for them.

We always determine what projects we think are worthy of public support and we would not go to our elected officials for support unless we had a very convincing case to make with them, nor would they listen to us, for why there are very important public purposes being served in what we're requesting. So that's the procedure that we follow.

Mrs. MORELLA. Would any of the rest of you like to comment on the CRADA route? Of course, we all think that there are so many projects that we think are absolutely worthwhile and in the public interest. And they are to a degree. A matter of priorities.

Would you like to comment, Dr. Gute?

Dr. GUTE. I am personally unfamiliar with the funding mechanism you're describing.

Mrs. MORELLA. It's the Cooperative Research and Development Act, which means, you know, working in concert, together, for a project that has an ultimate goal, and it seems to me the environmental area, you know, with EPA would be a logical one.

Dr. GUTE. We believe we have pursued an active partnership with corporations as part of the CEM program as it's grown since 1984. We have a significant number of corporate affiliate members, two of which have written letters in support of our activities. That, interestingly enough, basically underscores some of the educational initiatives that we have undertaken at CEM in contrast to the research dollars that are also spent.

So I think that we have pursued that in the normal operation of the Center for Environmental Management. To date, we have raised somewhere in the order of $2 million in unrestricted funds from corporations to aid in the implementation of CEM-related activities.

Mrs. MORELLA. Dr. McCallum?

That is not exactly a CRADA, but I understand, working together with business.

Dr. McCALLUM. We've worked together with business in many endeavors. We've also worked with private foundations in certain initiatives—the Civitan, the Cystic Fibrosis Foundation—in the construction of facilities in support of research, so that we do have those type of initiatives underway and we are taking full advantage of them.

Mrs. MORELLA. I am sure you are. I guess I am talking about a more formalized kind of approach.

But also, let's say you get an earmark for a year. Is there any requirement that you report back to Congress in terms of what you have achieved during that year? Is there any final reporting done on that, or is it you're given the grant, it has its own operational mechanism, internal mechanism. So Congress has given it to you and that's it, unless you go back for more funding the next year, et cetera. Is there any accountability?

Dr. McCALLUM. The facility that we have will be—is occupied by scientists who will be competing for their research grants on a competitive basis. The proof of the facility will be our ability to attract the necessary continuing support for those research endeavors that we do have ongoing.

Mrs. MORELLA. Do you submit back to Congress that this is what you are doing or this is the progress that has been made?

Dr. McCALLUM. Well, we submit back through the research grants and applications and renewals that we are competing on then. That in a way is proof of the quality of the research that we are doing.

Mrs. MORELLA. Um-hum. Indirectly.

Dr. Gute?

Dr. GUTE. In general, that oversight role I think is assigned to the agency that is involved with the program, although we do make it a practice, even if it is not a particular requirement, to report back to the committee, as we did this year, in fact, to the subcommittee at which I had testified about progress on the project and where we were at that time.

Mrs. MORELLA. Um-hum. So practice and not of a policy.

Dr. GUTE. Right. As part of the terms of our cooperative agreements, we provide quarterly reports to EPA as well as annual reports that inform EPA fully of all activities pursued under the guise of those cooperative agreements.

Mrs. MORELLA. But in all instances, evidently Congress doesn't ask for any reporting back to them specifically. Right.

I thank you gentlemen for appearing before us and for your testimony, and I hope that you'll feel free to let us know what we can do to improve this particular process. Thank you.

Thanks, Mr. Chairman.

Mr. FINGERHUT. Thank you, Mrs. Morella.

I believe that, Mr. Bachus, you had no questions of this panel?

Mr. BACHUS. I would defer to the committee and to their knowledge.

Mr. FINGERHUT. Thank you.

We thank the panel and, unless there are further questions, the panel is dismissed.

The CHAIRMAN. I want to thank Mr. Fingerhut for substituting for me. This is our way of checking out the freshmen to see if they can do a good job, and when I retire I'll decide which one of them to appoint as chairman after I leave.

[Laughter].

The CHAIRMAN. May I add my thanks to all of you gentlemen. I don't think—perhaps you know that when a series of earmarked projects were presented on the floor of the House for a vote last November they were rejected by more than 2 to 1. That included your project, Dr. McCallum. And the problem is not yours. The problem is our procedures, and we're going to try and correct that.

We feel that we have been deprived of the authority given to authorizing committees under the Rules of the House when this happens. Likewise, OMB feels that they have been short-circuited and the President feels that he's been short-circuited.

When that situation gets too bad, then certain things set in. For example, we have oversight authority which cannot be infringed by the Appropriations Committee, and when they take away one part of our authority we're liable to go back and use the other part of our authority. That's what we're doing today, and we're likely to do that very, very vigorously in the future unless this matter is reconciled.

All right. The next panel the witnesses are Mr. Alvin Pesachowitz, and correct me if I did that wrong, who is the Acting Deputy Assistant Administrator at EPA; Ms. Elizabeth Smedly, Acting Chief Financial Officer at the Department of Energy, and the Dr. Robert Brown, Deputy Associate Administrator, Office of Human Resources.

We appreciate your being here. Your testimony in full will be made a part of the record, but I see that most of you have been brief, so you may proceed to present your testimony in any way that you wish.

STATEMENTS OF ALVIN M. PESACHOWITZ, ACTING DEPUTY ASSISTANT ADMINISTRATOR FOR FINANCE AND ACQUISITION, ENVIRONMENTAL PROTECTION AGENCY, WASHINGTON, D.C.; ELIZABETH E. SMEDLEY, ACTING CHIEF FINANCIAL OFFICER, DEPARTMENT OF ENERGY, WASHINGTON, D.C.; DR. ROBERT W. BROWN, DEPUTY ASSOCIATE ADMINISTRATOR, OFFICE OF HUMAN RESOURCES EDUCATION, NATIONAL AERONAUTICS AND SPACE ADMINISTRATION, WASHINGTON, D.C.

Mr. PESACHOWITZ. Thank you, Mr. Chairman.

The CHAIRMAN. Tell me how to pronounce your name.

Mr. PESACHOWITZ. Sure. It's "pe-sock-oh-wits." Alvin Pesachowitz.

The CHAIRMAN. Why can't you have a simple name like Brown? [Laughter].

Mr. PESACHOWITZ. Just good heritage.

The CHAIRMAN. Just good luck.

Mr. PESACHOWITZ. Along with your good heritage.

The CHAIRMAN. All right.

Mr. PESACHOWITZ. I am pleased to appear today before the Committee representing EPA at this hearing. I have brought with me a few folks I'd just like to mention in case there are specific questions that I am unable to answer. I brought with me today Clarence Mahan, the Director of our Office of Research Program Management, and Darwin Wright, who was mentioned earlier, who is the Director of our center programs at EPA that deals with centers' research.

As you're already indicated, my full testimony, I would hope, would be entered in the record.

The CHAIRMAN. It will.

Mr. PESACHOWITZ. I would just like to summarize that testimony a little bit. In general, EPA would prefer that our budget not include congressional earmarks. We would rather rely on the normal budget and grant processes to establish our work priorities.

The agency abides by the intent of Congress and provides funds to specific projects as directed. Specific earmarks do not go through agency review or competitive application process.

Earmarks preclude projects from going through the internal agency review process as well as the competitive application process. During the formulation of the budget the agency determines those programs that best complements its mission. It is our view that the best science is obtained through fair and open competition for scarce environmental resources.

Most academic earmarks are found in EPA's Research and Development account. The second largest number are found in our Abatement, Control and Compliance account. I believe in 1993 there were 12 earmarks in the R&D account which were academic, totaling $14.3 million. There were 9 earmarks in our Abatement, Control and Compliance account, totaling $8.7 million.

Eighty-three percent of the R&D academic earmarks were funded through a grant mechanism, and 75 percent of our Abatement, Control and Compliance academic earmarks were funded through a grant mechanism. In the recent past, we have been forced to fund congressional earmarks at the expense of some of our higher priority base programs.

EPA tracks our earmarks through our Integrated Financial Management System, and this system allows us to track obligations of funds and ensures that earmarks are used for the purposes for which they were intended. The funds that the Agency receives for academic earmarks require the same review as our base program dollars. In the Office of Research and Development, this consists of peer review, or peer reviews all grants and cooperative agreements at the proposal stage. Work directed by earmarks is often of a lower immediate priority than our base work, but most earmarks are projects that the Agency would have funded some time in the future or if greater funds were available to the Agency.

In order to ensure that earmarked projects meet the scientific agenda of the Agency, we work with the grant recipients to refine their proposals as well as their end products.

In conclusion, I would like to thank you once again for the opportunity to testify today. At this time I would just ask Mr. Mahan if he would like to make any statement? Thank you.

[The prepared statement of Mr. Pesachowitz follows:]

TESTIMONY OF
ALVIN M. PESACHOWITZ
ACTING DEPUTY ASSISTANT ADMINISTRATOR
FOR FINANCE AND ACQUISITION
U.S. ENVIRONMENTAL PROTECTION AGENCY
BEFORE THE
COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY
U.S. HOUSE OF REPRESENTATIVES

September 15, 1993

Good morning, Mr. Chairman and Members of the Committee. I am Alvin M. Pesachowitz, Acting Deputy Assistant Administrator for Finance and Acquisition, United States Environmental Protection Agency (EPA). I am accompanied today by Clarence Mahan, Director of the Office of Research Program Management, in the Office of Research and Development at EPA. I am pleased to be here today to testify on behalf of Administrator Browner on the subject of academic earmarks.

AGENCY POSITION ON CONGRESSIONAL EARMARKS

Mr. Chairman, let me begin by stating a general EPA policy regarding Congressional earmarks. We would prefer that our budget not include Congressional earmarks, and instead, rely on the normal budget and grant processes to establish the priority of our work. The President's Budget, submitted annually, proposes budgetary resources for those areas the Agency has identified, through careful evaluation, as high priority. The earmarking of specific projects precludes them from being a part of the internal Agency review process, as well as the competitive application process. It is our view that the best science is obtained by fair and open competition for the limited environmental R&D resources available.

BACKGROUND ON EPA's CONGRESSIONAL EARMARKS

I would like to focus on the two EPA accounts, Research and Development (R&D) and Abatement, Control and Compliance (AC&C), which historically have the largest number of academic earmarks. In FY 1993, Congress directed that we fund twenty-six (26) add-ons, totaling $22 million, in the R&D account. Of these add-ons, twelve (12) were for academic earmarks totaling $14.3 million. In the AC&C account, Congress directed the Agency to fund eighty-seven (87) add-ons, totaling $100 million. Of these add-ons, nine (9) went to academic institutions, totaling $8.7 million. In the R&D account, eighty-three (83) percent of the academic earmarks were funded through a grant vehicle, while seventy-five (75) percent of the AC&C academic earmarks were funded through a grant vehicle.

The Agency has no choice but to implement these directives, though, frequently at a cost to our base programs and also to competitively obtained science. In recent years, Congress has not fully funded the earmarks. This results in reductions to the Agency's base research, enforcement, abatement and other programs. In addition, the areas increased by earmarks are held harmless from the general reductions necessary to pay for them. Therefore, the Agency's base programs take a greater proportional share of the general reductions.

ALLOCATION AND TRACKING OF EARMARKED FUNDS

The Agency tracks Congressional earmarks through its Integrated Financial Management System (IFMS). We assign to each earmark a discrete code which specifically distinguishes it from any other add-on in the system and from the base dollars requested by the President. This allows us to track the obligation of the funds and ensures that earmarks are used for the purposes for which they were intended. A specific program office within the Agency is responsible for the oversight of each earmark and the quality of the final product.

PROGRAM MANAGEMENT - PROGRESS AND QUALITY

The funds that the Agency receives for academic earmarks require the same reviews as our base program dollars. We go to great lengths to ensure that the products paid for by earmarked dollars provide useful information that complement the Agency's mission and research plans.

Often, the work that is directed by the earmark is of a lower immediate priority than our base program work, and many times the proposals are modified to be more responsive to the needs of both parties. The Office of Research and Development (ORD) uses a peer review process to ensure that the information provided is useful to the Agency. ORD peer reviews all grants and cooperative agreements at the proposal stage.

In conclusion, I would like to thank you once again for the opportunity to testify before you today. At this time, Mr. Mahan and I would be happy to answer any questions you may have concerning Congressional earmarks and the EPA.

The CHAIRMAN. Thank you, Mr. Pesachowitz and Mr. Mahan.

Ms. Smedley?

Ms. SMEDLEY. Thank you Mr. Chairman. I too am pleased to appear before this committee and have an opportunity to discuss academic earmarks as they are applied to Department of Energy programs. My testimony is going to mirror what EPA has already said, so I'll just summarize very briefly.

We have seen an historical trend towards increasing earmarks at the Department of Energy. In 1993, we have earmarks totaling almost $190 million, and that's more than double what we had in 1990. Over the past 4 years, from 1990 through 1993, we have had earmarks totaling almost $600 million.

At the same time the two major programs that receive earmarks are our Basic Energy Sciences program and our Biological and Environmental Research program. These two programs alone over the last 4 years have received over $380 million worth of earmarks, and at the same time the amount appropriated for those programs was $192 million below the President's request. So we would prefer—far prefer to have projects proposed through our normal budget process, so that we can review priorities and establish them within our limited resources, propose them to the Congress and hopefully have them supported.

Just as in the case of the Environmental Protection Agency, once we do receive an earmark we do attempt to ensure that the funds are spent properly and are consistent with the intent of Congress.

We do have a procedure. We get a grant proposal from our recipients of earmarked funds. We review the proposal for consistency with the intent of the earmark. We monitor construction of construction projects, actually visit the sites, make sure that the money is being spent, again, as intended by Congress.

I think this concludes my synopsis and I'll be pleased to answer any questions the Committee may have.

[The prepared statement of Ms. Smedley follows:]

STATEMENT OF
ELIZABETH E. SMEDLEY
ACTING CHIEF FINANCIAL OFFICER
BEFORE THE
COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY
UNITED STATES HOUSE OF REPRESENTATIVES
AUGUST 3, 1993

Mr. Chairman and members of the Committee, I am pleased to have an opportunity to appear before this Committee to discuss the issue of congressional appropriations directed to specific colleges, universities, and academic institutions. As you are aware, the Department of Energy receives funding to conduct mission program activities from both the Energy and Water Development and Interior and Related Agencies Appropriations Committees. The vast majority of congressional appropriations directed to academic institutions are typically financed from the Energy and Water Development Appropriation Act.

Historically, the magnitude of congressional appropriations directed to academic institutions has increased substantially, more than doubling since FY 1990. Although these academic earmarks affect a number of Departmental programs and activities, the majority are identified with the Energy Research programmatic areas. Academic earmarks typically fall into two broad categories: research and development, and research facility construction activities. The latter entails funding facility construction or modifications typically at academic or research related institutions which are not located on government-owned property. Facility-related construction earmarks have accounted for approximately one-half of all academic earmarks specified over the past several years.

For several reasons, the Department of Energy is opposed to the current process of incorporating academic earmarks in appropriations which finance direct mission activities. First, the majority of these earmarks are neither requested nor supported by the Administration. As such, these congressionally-directed activities have not undergone a technical peer review and/or budget review process to assess their technical merit and relative priority in relation to other Departmental activities. Many of the facility-related earmarks are outside the mission of the Department. Although the Department may derive some benefit from the congressionally-directed research activities appropriated, the benefits are limited since these research activities do not always contribute to the highest quality research related to Departmental program activities.

Second, inclusion of academic earmarks in Departmental legislation can adversely affect mission program activities. Specifically, academic earmarks are sometimes directed in the legislative process without providing a commensurate increase in funding. This practice necessitates reducing and/or realigning ongoing mission program activities to accommodate unfunded requirements within existing funding levels. Moreover, this financial burden is compounded by other general or program specific reductions applied to Departmental programs and activities during the appropriations process.

Finally, academic earmarks related to facility construction activities present unique legal, technical, and administrative problems to the Department in managing and overseeing construction activities on non-government-owned property. The institution, rather than the Department, has the long-term interest in maintaining, modifying, and utilizing the facility as dictated by its mission needs and requirements. Thus, the Department cannot effectively manage or be responsible for these facilities on a long-term basis without substantial inherent conflicts. Accordingly, the Department vests title for these facilities with the recipient institutions as soon as practical following the receipt of congressional concurrence.

The Administration has in the past proposed for rescission or deferral academic earmarks which were neither requested in the budget nor subjected to critical peer review and assessment. Historically, these rescission/deferral proposals have rarely been adopted by the committees.

Notwithstanding the Department's general views and concerns related to academic earmarks, I would like to assure you that the Department takes very seriously its responsibility in ensuring that earmarks are administered and expeditiously implemented.

Administration of congressional academic earmarks within the Department is a collaborative effort among my organization, Program Officials, and other appropriate personnel both at Headquarters and in the field. Academic earmarks are identified in appropriation acts as well as from amplifying guidance contained in the accompanying House, Senate and Conference Reports. As guidance is received from the committees, it is formally transmitted to all program organizations for assessment. Based on this guidance, program organizations determine the proper allocation of resources to the appropriate Headquarters and/or field elements for implementation. Funds are subsequently allotted to a particular Departmental Element for implementation.

Program organizations have lead responsibility for administering and overseeing these program activities. At Headquarters, oversight and control activities are accomplished by monitoring the status of program implementation through: the accounting and financial management systems and the performance of periodic programmatic and financial reviews. For construction earmarks, contained in appropriation language, each project is identified in the financial plan as a discrete item and is tracked and reported at that level.

In the Operations Offices, the Department administers the facility construction projects beginning with orientation meetings with the recipient institutions to discuss project scope, the grant process, and the recipients' responsibilities to manage the project to completion. Throughout the project life, the Operation Offices monitor the project activities and progress through reviews of the facility design documents, monthly financial reports, quarterly project progress reports and regular on-site construction progress meetings to review and discuss budgets, schedules, and/or issues. In the event that unforeseen conditions are encountered during program execution which result in substantive changes to these special congressional interest items, the Department's formal reprogramming procedures require that cognizant committees be notified prior to implementing changes. We believe the controls and procedures outlined here are effective and responsive to the need to carry out program activities in accord with congressional guidance.

Mr. Chairman, this concludes my formal statement. I would be pleased to answer questions on this testimony from the Committee.

U.S. Department of Energy
Office of the Secretary
Washington, D.C. 20585
202/586-5534

BIOGRAPHY

ELIZABETH E. SMEDLEY

Elizabeth E. Smedley was appointed Controller for the U.S. Department of Energy (DOE) on September 6, 1985 and named Acting Chief Financial Officer (CFO) when the Department established a CFO organization in August 1991. As Acting Chief Financial Officer, she is responsible for the Department's budget and accounting operations which total over $20 billion in resources annually, as well as for development of financial policy and for establishment of a compliance review program which ensures that proper financial procedures are followed by Headquarters and field offices.

Mrs. Smedley has been with DOE since December 30, 1979, serving first as the Director of the Office of Financial Policy, and then as Deputy Director, Office of Budget. She served as the Agency Budget Officer from June 1981 until June 1983, and most recently, as Assistant Controller for Budget, Policy and Compliance.

Prior to her assignment to DOE, Mrs. Smedley spent four and one-half years as Head of the Operating Forces Branch within the Office of the Comptroller of the Navy. In this position, she was responsible for formulation, defense and execution of the portion of the Navy Budget which provided operating funds for the Atlantic and Pacific fleets. From 1964 to 1975, she served in positions of increasing responsibility with the Public Health Service, Department of the Army, Defense Communications Agency, and Department of Navy.

In recognition of her work at DOE, Mrs. Smedley received the rank of Distinguished Executive in the Senior Executive Service in 1982; the DOE Meritorious Service Award in 1984 and 1990; the rank of Meritorious Executive in the Senior Executive Service in 1988; the Secretary's Award in January 1989; the Donald L. Scantlebury Memorial Award in 1989; and the Superior Performance Award in 1989, 1990, 1991 and 1992.

Mrs. Smedley received a Bachelor of Arts degree in International Relations from Goucher College in 1964 and did graduate work in Business and Public Administration at George Washington University. She has been active in community affairs, and from 1969-1973, served in a part-time elected capacity as Councilwoman for the City of Bowie, Maryland.

Born in Baltimore, Maryland on November 9, 1943, Mrs. Smedley currently resides in Boonsboro, Maryland. She is married to Jerry Morgan Smedley of Mishawaka, Indiana. They have four children: John, Jeremy, James and Jennifer.

February 1993

The **CHAIRMAN**. Thank you very much, Ms. Smedley.

Dr. Brown?

Dr. **BROWN**. Thank you, Mr. Chairman, and distinguished members of the committee. I appreciate the opportunity to discuss the academic earmarks that NASA is involved with.

NASA has a long history of successfully involving and developing the capacity of colleges and universities around the country through a competitively based system. This system ensures that high quality, responsive research proposals are selected to help meet our mission at the agency. Consequently, as my colleagues here at the table have indicated, we do not solicit or encourage congressional academic earmarks.

However, when Congress, through appropriation language or conference and committee reports, directs NASA to fund specific institutions by name or program, we strive to meet the intent of congressional direction while at the same time we strive to be wise stewards of the taxpayers' money.

We issue, for example, broad agency announcements and requests for proposals to fund research that is expected to benefit our mission at NASA. These solicitations are advertised in the Commerce Business Daily and widely distributed. Research proposals are then submitted to the agency and evaluated, often by external peer review committees.

Selection of projects are based on predetermined criteria. Unsolicited proposals are submitted to the agency at the initiative of the proposer and then reviewed either by our internal technical staff or, as I indicated earlier, by an external review committee to determine whether that research responds to an existing NASA need.

As our activities have expanded over the years, we have increased and diversified the involvement of the academic community. We now involve academic institutions in every State, the District of Columbia and the Territories. We endeavor to include small institutions as well as large.

We try to support research both at—in the established disciplines as well as innovative research which may be very much in the embryonic stage of development. We have established a program to build the capability of colleges and universities to compete for NASA research dollars. This is done through efforts to build the research infrastructure as well as the expertise of the researchers.

Three examples come to mind. One is our Space Grant College and Fellowship Program. Another is our Historically Black Colleges and University Research Centers. And yet another is our Other Minority University Program which involves institutions with substantial Hispanic enrollments.

We recently announced the Experimental Program to Stimulate Competitive Research commonly known as EPSCOR, which is a new program to augment our outreach efforts as directed by the FY93 NASA Authorization Act. It is modeled after the National Science Foundation's EPSCOR program, and our program is directed to the 19 EPSCOR States to enhance their research and development capabilities and to bring about greater diversity in the participation of the NASA mission.

In FY93 our funding to higher education institutes will total nearly $725 million. This funding supports a wide range of activities, including research related to NASA's programs, faculty and student support, infrastructure development and facility support, university faculty or the leadership pool for conducting scientific investigations that utilize the data returned from NASA missions.

When we receive a congressionally directed academic earmark we ask the designated institution to submit a proposal which must include a description of the project, a schedule and a detailed report. To the extent possible, we work with those institutions to tailor the proposal to benefit NASA objectives as well as those of the institution.

After the proposal is received it is evaluated by the appropriate technical staff and a milestone plan to review progress on the project is established. In cases involving construction of facilities, a schedule is established the same as for our NASA facility. This schedule includes the design and construction reviews at agreed points of time.

Funding is released consistent with the project milestones and the project is tracked through the NASA accounting system the same as with all other NASA research proposals.

So in concluding, Mr. Chairman, as indicated in the beginning of my remarks, we prefer that our research priorities be established and implemented through the normal budget process and grant process, which is a competitively based system.

The academic community remains in a central element in realizing our mission, and we have implemented programs to competitively expand the network of academic institutions involved. Implementation of congressionally directed earmarks may occur at the expense of ongoing merit reviewed priorities. Whenever this happens, however, we make every effort to be, as I indicated earlier, wise stewards of the taxpayers' dollars.

Those conclude my remarks, Mr. Chairman, I'd be glad to respond to any comments or questions.

[The prepared statement of Dr. Brown follows:]

National Aeronautics and
Space Administration

Hold for Release Until
Presented by Witness

August 3, 1993

Committee on Science, Space and Technology

U.S. House of Representatives

Statement by:
Dr. Robert W. Brown
Deputy Associate Administrator
Office of Human Resources and Education

103rd Congress

Statement of

Dr. Robert W. Brown
Deputy Associate Administrator
Office of Human Resources and Education

before the

Committee on Science, Space and Technology
House of Representatives

Mr. Chairman, and distinguished Members of the Committee:

Thank you for this opportunity to discuss NASA's involvement with "academic earmarks."

NASA and the Academic Community

Before turning to earmarks, I would first like to explain NASA's approach for involving the academic community in the Agency's programs. NASA has a long history of successful involvement in developing the research capabilities of this nation's university community through a competitive-based system, which ensures that high quality responsive research proposals are selected to meet NASA's needs.

Since the early days of NASA, we have involved universities and the private sector in the exciting mission of the Agency. As our activities have expanded, we have increased and diversified the involvement of the academic community. We now involve academic institutions in every state, district and territory. We have endeavored to include small institutions as well as large, and to support research in established disciplines as well as innovative research which may be in its embryonic stage of development.

We have established programs to build the capabilities of colleges and universities to compete for NASA research dollars. This is done through efforts to build the research infrastructure as well as the expertise of the researchers. Through the Space Grant College and Fellowship program, Historically Black College and University (HBCU) Research Centers and the Other Minority Universities programs, we have made a special effort to focus on developing the capabilities of institutions not traditionally involved in research and development activities.

We are in the process of establishing a program, the Experimental Program to Stimulate Competitive Research (EPSCoR), to augment these efforts, as directed by the FY 1993 NASA Authorization Act. It will be modeled after the National Science Foundation's EPSCoR program, and will be directed to specific states to enhance their research and development capabilities and bring a greater diversity of participation to the NASA mission.

In FY 1993, our funding to higher education institutions will total nearly $725 million. This funding supports a wide diversity of activities, including research activities related to NASA programs, faculty support, student support, and infrastructure development and facility support. University faculty members are the leadership pool for conducting scientific investigations that utilize the data returned from NASA missions.

Congressional Earmarks

NASA does not solicit or encourage Congressional "earmarks." We would prefer that our priorities be established through the normal budget and grant processes. However, when funding is directed to a specific institution, either by name or program, we strive to meet the intent of Congressional direction while being wise stewards of taxpayers' dollars.

We require the designated institution to submit a proposal, which must include a description of the project, a schedule and a detailed budget. To the extent possible, we work with the recipients of the funds to tailor the proposal to benefit NASA objectives as well as their own. After the proposal is received by NASA it is evaluated by the appropriate technical staff, and a milestone plan to review progress on the project is established. In cases which involve construction of facilities, a schedule is established, just like for a NASA facility, which provides for design and construction reviews at agreed points of time. Funding is released consistent with program milestones, and tracked through the NASA accounting system like all other NASA research proposals.

Conclusion

NASA would prefer that our research priorities be established through the normal budgetary process. Implementation of Congressional directives may occur at the expense of ongoing, merit reviewed priorities.

The academic community remains an essential element in realizing NASA's mission and we have implemented programs to competitively expand the network of academic institutions involved. We have developed an excellent relationship with these institutions and feel that the nation receives maximum benefit from their competitive involvement in the civilian space program.

Biographical Sketch

June 1993

Dr. Robert W. Brown
Deputy Associate Administrator
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Dr. Brown is Deputy Associate Administrator for NASA Headquarters' Office of Human Resources and Education. He provides, in concert with the Associate Administrator, executive leadership and policy direction for the four functional areas of personnel management, education, training and development, and human resource management systems for NASA's civilian workforce of 25, 000 employees.

Immediately prior to this position, for six years (1986-1991), Dr. Brown directed NASA's Educational Affairs Division. He redirected and expanded the agency's widely ranging aerospace education program for students, teachers, and other educators at the elementary, middle, and high schools levels, as well as college, university, and post-graduate levels.

His extensive Federal career covers a diverse array of technical, managerial, and executive positions in seven different agencies and organizations. Among those positions are :

1991-Present	Deputy Associate Administrator, Office of Human Resources and Education, NASA, Washington, DC.
1986-1991	Director, Educational Affairs Division, NASA, Washington, DC.
1985-1986	Assistant Director for Finance and Administrative Services, U.S. Office of Personnel Management. Washington, DC.
1982-1985	Associate Dean for Academic Programs, Federal Executive Institute, Charlottesville, Virginia
	Visiting Professor, Administrative Staff College, Mt. Eliza, Victoria., Australia (Six weeks, 1984)
1979-1982	Assistant Director for Performance Management, U.S. Office of Personnel Management, Washington, DC.
1977-1979	Federal Executive Fellow, The Brookings Institution, Washington, DC.
1971-1977	Associate Director for Program Coordination, Alcohol, Drug Abuse, and Mental Health Administration, U.S. Department of Health, Education and Welfare, Washington, DC.
1968-1971	Special Assistant for Governmental Relations; and Acting Director, Training and Technical Assistance Division, U.S. Office of Economic Opportunity, Washington, DC.
1962-1968	Project Manager, U. S. Repatriation and Cuban Refugee Program, U.S. Department of Health, Education, and Welfare, Washington, DC.

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1957-1962 Clinician, Veterans Administration Neuropsychiatric Hospital,
Battle Creek, Michigan

Dr. Brown received his BA. degree from Lincoln University in Missouri, a MSW degree from Atlanta University, and a Doctor of Public Administration from the University of Southern California.

His international experiences include a visiting professorship at the Australian Administration Staff College, and presenting professional papers in Austria, India, Germany, Spain, Canada, and Switzerland. Also, among his publications are articles on supervisory and executive development, executive stress, performance appraisal and public policy, and aerospace education.

Having become a supergrade executive in 1974 and joining the Senior Executive Service (SES) as a charter member in 1979, Dr. Brown's leadership performance has led to many awards including HEW's Distinguished Service Award in 1974; a Federal Executive Fellowship to the Brookings Institution, 1977; an award for managing NASA's Teacher in Space Program following the Challenger accident 1988; the Presidential Meritorious Rank Award, 1989; and in 1992, the NASA Medal for Outstanding Leadership, the Challenger Seven Award from the Challenger Center for Space Science Education; the Lawrence W. Prakken Professional Cooperation Award from the International Technology Education Association, and in NASA, the Presidential Distinguished Rank Award.

Dr. Brown is a member of the Board of Directors of the Journal for Public Managers, the Board of the U.S. Department of Agriculture Graduate School, and the Senior Executive Association.

He is married to the former Myrtle Janice Rushing, has an adult son, and lives in Rockville, Maryland.

The CHAIRMAN. Thank you very much, Dr. Brown.

Let me first recognize Mr. Fingerhut as a reward for his outstanding services as temporary chair.

Mr. FINGERHUT. Mr. Chairman, I appreciate it, but I am here to listen and to learn, and listen to your questions and answers.

The CHAIRMAN. Very good answer.

Mr. FINGERHUT. Thank you. How am I doing?

[Laughter.]

The CHAIRMAN. Mrs. Morella?

Mrs. MORELLA. He's pretty good. I think I am going to let him be the chair pro tem when you're gone since it counts—the other side of the aisle.

It just seems to me from the nice succinct statements that you've made and what we've read that what you are saying is that earmarking does not really help the integrity and the objectives of the agencies, whether it's DOE or NASA or EPA, and really your solution, and this is the question—is your solution that we should just not allow any earmark, academic earmarking, or translated in another way, that there should be also any appropriations without the accompanying or preceding authorizations?

Mr. PESACHOWITZ. Sure. I think I agree wholeheartedly with that statement. I think that this year's HUD and VA appropriations bill used a precept that there would be no appropriations without authorization that has resulted in a significant reduction of a number of add-ons, at least through this stage of the process, in the EPA appropriations bill, and the Administrator is on record with the committee as saying that she would prefer as few earmarks as possible in the EPA bill, particularly if they're not funded earmarks, which then causes the problem of us having to take those funds out of other agency priorities.

Mrs. MORELLA. Would you like to comment on it, Ms. Smedley?

Ms. SMEDLEY. Yes. Clearly we would like to receive an annual authorization as well as our appropriation bill, and we would like to work with the Congress to try to make sure that those are consistent and that we are working in support of what all of our committees would like us to do.

Mrs. MORELLA. Do we not give you adequate encouragement to do such before the committees, to let your views be known during the process? I mean should we do more with allowing you the opportunity to state, restate, point out your priorities and remind us of this?

Ms. SMEDLEY. I think that you do an excellent job. I know our Secretary normally appears to explain our budget and our priorities, appears before a number of authorizing committees as well as our appropriations committees and then various of our program officers also appear before you to present our priorities and our budget request.

Staff, we work very well with your staff and my office, and I feel like we have quite an excellent opportunity to provide you with information on what we like to see in our budget.

The CHAIRMAN. Would the gentlelady yield just briefly?

Mrs. MORELLA. Yes, indeed.

The CHAIRMAN. I think the problem here which we're dancing around is that we do not have authorization for the civilian research and development activities of the Department of Energy, only the military contained in the defense authorization bill. We seem to be strikingly lacking in our capability to convince the Senate that we ought to have an authorization bill.

Mrs. **MORELLA**. Um-hum. Good point.

Dr. Brown?

Dr. **BROWN**. My views are consistent with those of my colleagues, Congresswoman. We prefer to have requirements that are set out in the authorization and the appropriation which enables us to plan and to anticipate and to try to carry out an orderly program, so that we're in support of that view.

Mrs. **MORELLA**. You all heard your agencies being alluded to and specifically cited in the last panel. Would you like an opportunity to respond to anything that was said in terms of correcting the record or any comments that you may have? I am just giving you an opportunity for it.

Mr. **PESACHOWITZ**. I would just like to ask Clarence Mahan to speak to a few of the issues.

Mrs. **MORELLA**. Excellent.

Mr. **MAHAN**. To my knowledge, we have never supported—no one in the Research and Development Office has supported any item that has been a congressional add-on either before or during the process of that. We have an ethic of developing the budget and then supporting the President's budget through that process.

I would say, however, that the work that Tufts has done is generally viewed as excellent work and that they did not approach EPA before the initial grant, I assure you also, because that was put in when Mr. Bolland was the Chairman of the Committee, Appropriations Committee, and it went in even over his objections, I understand.

But they have done excellent work, and Mr. Wright oversees all of our centers grants when we get these specific earmarks particularly, and he has done an excellent job in doing that.

So whereas we don't solicit them, once we get them we try to do the best we can in making sure that the taxpayers gets the best results for their dollars.

Mrs. **MORELLA**. Ms. Smedley, do you want to make any comments?

Ms. **SMEDLEY**. No. I really had no issue with the testimony that I heard.

Mrs. **MORELLA**. And Dr. Brown?

Dr. **BROWN**. I really didn't have an issue. Those universities are not ones that are associated with our earmarks per se. I do make the observation, as the Chairman has made, that when we do get the earmarks we do work with those institutions to try to make sure that it's a quality product and that it comports with our requirements even though it's not something that we planned for or anticipated. But we do try to make it a quality effort.

Mrs. **MORELLA**. I guess you feel you have an obligation to do the best with what you have been told to do. Right.

Well, thank you. Thank you very much for testifying and for the succinctness of the testimony.

Thanks, Mr. Chairman.

The CHAIRMAN. All of you customarily honor the earmarks included both in the bill and in the language of the conference report; is that correct?

Mr. PESACHOWITZ. Correct.

Ms. SMEDLEY. Correct.

Dr. BROWN. Yes.

The CHAIRMAN. And would you explain briefly why it is that you honor the earmarks contained in a conference report although it does not have the effect of law? Each of you.

Mr. PESACHOWITZ. Well, I guess I can start. I believe my colleagues will bear me out here. That we do it primarily because we view it as the intent of the committee and of Congress, and we like to keep a good relationship between the executive branch and Congress and this helps maintain that relationship.

We recognize that the report language is not binding in law, and there have been instances where in the report language we have only been given a suggestion that we might want to increase funding for a particular project which many times we decide is not appropriate within our priorities and don't fund.

But if the intent is clear, we feel in order to maintain good relationships with Congress that it is appropriate to follow that intent.

The CHAIRMAN. Does that reflect the views of the other two agencies?

Ms. SMEDLEY. It reflects ours. I'd just like to add one other point.

From our standpoint, we value receiving guidance in the report format instead of in statute because of the flexibility this gives us to propose changes if during our budget execution a problem arises and we need to propose to realign some funds. If we have a statutory requirement for every dollar, that means the only way we can shift any money is to come back to the Congress with a request for a rescission, a supplemental, some kind of a request which takes an Act of Congress, signature by the President, and also normally takes an extended period of time.

We value greatly the reprogramming or informal process where we can come to you, our authorizing committee, and to our appropriating committee and propose to move some monies to do things differently from the way they were set out in the report, and we can more quickly implement something that is perhaps an urgently needed change and during budget execution.

Dr. BROWN. Similar to EPA, Mr. Chairman, we regard the conference report language essentially as representing congressional intent We find that sometimes the language is quite specific in the report. It says "you shall." There are other times when it may be—we interpret it as discretionary, and when that opportunity presents itself well we proceed accordingly.

The CHAIRMAN. Let me ask you a more delicate question. Have any of you had any experience or your agencies had any experience with flouting the language of a conference report and enjoyed any repercussions from that? First, have you ever tried not to do it? Secondly, if you have, did you suffer any consequences?

Dr. BROWN. I can't recall any offhand, Mr. Chairman.

Ms. SMEDLEY. I can't recall either ever having flouted. Normally, we try to come back with a reprogramming proposal and we try to negotiate a change—

The **CHAIRMAN**. You try to come back with a rescission sometimes but you don't get very far.

Ms. **SMEDLEY**. Well, we have tried that a couple times too.

The **CHAIRMAN**. Okay.

Mr. **PESACHOWITZ**. I think I am in the same position as my colleagues. We have done reprogrammings and we have had discussions with the Hill about them when they dealt with an add-on.

The **CHAIRMAN**. All right. Dr. Brown, you have indicated your process for soliciting proposals. Did you ever announce a program for the funding of a planetarium at community colleges?

Dr. **BROWN**. Announce a program?

The **CHAIRMAN**. Yes. Invite proposals for such?

Dr. **BROWN**. No, sir, we did not.

The **CHAIRMAN**. And yet you funded the Delta Community College for a planetarium as an earmark.

Dr. **BROWN**. Yes. It was in the congressional report.

The **CHAIRMAN**. That is correct.

So that represented the funding of a program which you had not established a process to fund and had never funded before. Is that correct?

Dr. **BROWN**. I don't believe so of that particular kind. We do provide some support to community colleges, but in that particular instance that's the first of its kinds.

The **CHAIRMAN**. I got a bunch of them that would like to have a planetarium. Can I ask them to send you a letter?

With regard to the designation of Wheeling Jesuit College as a recipient of funds for the classroom of the future, do you have a program for accepting applications to establish classrooms for the future?

Dr. **BROWN**. Not per se, Mr. Chairman. On that particular project we did not seek that earmark. It came to us by way of legislative language. It did happen to comport with an area in our education program that we were very much concerned about in terms of classrooms of the future.

In fact, we had received ideas and questions from many educational institutions around the country to help them define what a classroom of the future might be. That happened right at the time that this earmark came along, and our approach was if we do have to fund this let's try to fund this project in a way that it achieves some of our objectives as well as the proposer.

The **CHAIRMAN**. Correct. This is not in anyway to be derogatory about the concept. I think it's a very important concept, and I hope that the funding of the concept at Wheeling proves to be of use.

I am just inquiring whether you had a specific program, invited applications, received them in connection with this.

Dr. **BROWN**. No, we did not.

The **CHAIRMAN**. And is the similar answer with regard to the Technology Transfer Center which Wheeling College also has. Did you solicit proposals, requests for proposals, whatever you call them, to fund a Technology Transfer Center with the particular characters that exist there?

Dr. **BROWN**. No, we did not, although technology transfer is a concept and approach that we feel very strongly about.

The **CHAIRMAN**. It's a part of your mission. I know that.

Dr. BROWN. Yes.

The CHAIRMAN. All right. Ms. Smedley, can you cite for me the specific authorization that the Department of Energy has to construct hospitals or medical centers?

Ms. SMEDLEY. No, sir, I cannot.

The CHAIRMAN. As far as you know, there is no such specific authorization?

Ms. SMEDLEY. I know of none.

The CHAIRMAN. And yet you spent quite a few tens of millions, maybe hundreds of millions of dollars, on that?

Ms. SMEDLEY. Yes, we have.

The CHAIRMAN. The—let me ask you a general question. If the President were to issue an executive order saying that you should disregard any earmarks contained in report language would that be helpful, unhelpful, desirable, politically risky? How would you designate it?

Ms. SMEDLEY. First off, let me clearly say if the President were to issue an executive order, obviously, we would carry it out. I am reminded—I am a little bit concerned about what the ramifications of such an executive order might be, and my mind is foggy—this happens as you get older—but I do recall—

The CHAIRMAN. Tell me about it.

Ms. SMEDLEY. —a former OMB Director who issued a pronouncement indicating that agencies were not to follow report language when there were items that were not included in the President's budget request. And I remember that Congress promptly proposed bill language that said we will follow report language to the letter and treat it as law. And then, as I recall, both sides backed off and we continued with the status quo.

Obviously, what we would prefer is to resolve this problem to the point where we don't get earmarks but we do it in a cooperative way with your committee and with our appropriators. That would be the best of all possible worlds.

The CHAIRMAN. Obviously, it's not desirable to have you caught in the middle between a fight between different segments of Congress or Congress and the White House. I, obviously, can concede that.

Mr. PESACHOWITZ. I would agree 100 percent with Ms. Smedley. That's exactly my position. I think that the developing a collegial relationship between the executive branch, Congress—and all parts of Congress, both the authorizing side and the appropriations side, will lead, hopefully, to a resolution of this issue, an we certainly support efforts to reduce earmarkings in our bill.

The CHAIRMAN. You are all aware of the fact that when the House was presented with an opportunity to vote on about $100 million of these earmarks last November they rejected them overwhelmingly. You are aware of that?

Ms. SMEDLEY. My bill. Yes.

The CHAIRMAN. It was contained in your appropriations.

Ms. SMEDLEY. Energy and Water Appropriations Bill. Yes.

The CHAIRMAN. And didn't you marvel at how it magically reappeared in the defense bill a week later?

[Laughter].

Ms. SMEDLEY. Yes, we marveled.

[Laughter].

The **CHAIRMAN**. Protected by a rule.

I'll turn to Mr. Walker and see if he has any enlightening questions.

Mr. **WALKER**. Thank you. As I came in, you were testifying to the fact that the reason why you do these earmarks is because you like to maintain good relationships with the Congress and that that's important for the agency, and I understand it and fundamentally agree.

Do you put the same emphasis on earmarks from authorizing committees as you do for appropriating committees? If authorizing committees—if authorizing committees earmark to you, do they get the same kind of attention? Do you value the relationship with Congress as much for authorizing earmarks as you do for appropriating earmarks?

Mr. **PESACHOWITZ**. Well, let me just say that we value very heavily the authorizing committees of Congress. I would say that in many instances, obviously, those—if specific things are authorized that way, if we don't have funds to carry them out, it becomes particularly difficult to make those things happen.

Mr. **WALKER**. So, well—well, is that an answer that all of you would agree with?

Dr. **BROWN**. I'd say in NASA we value the wisdom of the authorization committee very much. I mean it gives legitimacy to the effort. It just so happens that the implementation of the authorization requires an appropriation, as you well know, and so we have to deal with what's before us.

But yes, we do value the authorization committee.

Mr. **WALKER**. Well, but if that is, in fact, your opinion, the fact is that not all of the money that you get from the appropriating committees is tied up in earmarks. They try to do it as much as possible, but it's not all tied up.

So my question for you is of the monies left, if the authorizing committees have earmarked that the appropriating committees haven't earmarked, do the authorizing committee's priorities get the same level of attention?

Mr. **MAHAN**. Congressman, EPA has not had an authorization bill in research and development, so all our money is not tied up in that sense.

Mr. **WALKER**. Okay.

Mr. **MAHAN**. I mean we can't do anything about it if we don't have an authorization—

Mr. **WALKER**. Okay. Well, if this Committee were to sit down and in its joint wisdom send you a letter and say these are the projects we want you to fund? Would your—

Mr. **PESACHOWITZ**. Lots of luck.

Mr. **WALKER**. Well, would your relationship with Congress be so valuable to you at that point that you would say, "Oh, Oh. You have got 55 Members of Congress that have jurisdiction in our area that now want these things done." At that point does your relationship with Congress figure in, and do you fund those projects as instructed by the members of the authorization committee?

Mr. **MAHAN**. Can I take a stab at it?

Mr. **WALKER**. Sure.

Mr. MAHAN. There would be no way we could do it because we get letters from every Senator and every Member of Congress that that was what they wanted. We get a lot of them now but we can't fund them all.

Mr. WALKER. But in all honesty that is precisely what you get in report language. Because understand none of us on the floor have any input into that report language whatsoever. So what you have gotten from the Appropriations Committee is precisely that—individual members making their demands in the report language over which the rest of the Congress has absolutely no say.

And what you are saying is that that information to you is so important, that your relationships with Congress are so important in that instance that you go ahead and fund them without question and leave literally hundreds of other Members of Congress without recourse.

And what I hear you suggesting is that if those other Members of Congress then were to make a similar request in something which is akin to a report, to an appropriations report that, then that would not be regarded as important by your agencies. At that point your relationship with the Congress are not nearly as important. And I am trying to figure out the dichotomy between those two standards.

Ms. SMEDLEY. Could I offer—I'd like to come back to the point that I tried to make earlier. We recognize that Congress has the right to look at the budget and to determine what amounts of money get appropriated and what programs we conduct. The authorizing committees have a role. The Appropriations Committees have a role. We have a role to work with you in this process to try to get to the best result we possibly can.

I think from my standpoint it is vital that we have some process of direction other than line item appropriations, as I said earlier, which spells out the exact amount of dollars for each particular program. Because then as managers we have no flexibility to deal with the day-to-day realities of managing a program.

If appropriation report language is not the way to get that sense of Congress other than through line item appropriations, we—you know, we're certainly willing and open to considering an alternative process.

I would hope that we could come up with a process that would provide for direction on a consensus basis on behalf of the Congress so, as Mr. Mahan indicated, we as agencies are not trying to deal with individual Members, and very often very valid programs, but also very often worth far more money than we have available in our budget.

Mr. WALKER. I understand how line items, if they went down through it and did by line item each thing it would make it very difficult to manage. But understand that's a very cozy relationship from the standpoint of the appropriators too. Because if they had to put those line items into each appropriation bill, the fact is that they would then be eligible to be stricken on the floor, and it would be far more difficult to get done what they want to get done if they actually had to specify this much for this university in a bill. Because then members could go down through and actually offer an

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amendment to strike that particular funding and it would not be buried somewhere in a report which is very difficult to get to.

Because even if we strike the amount of money on the floor that relates to what the report language says is for some university, the fact is that when it comes down to you all, as I understand it, the fact that that money was stricken but because we didn't have a line item you may go ahead and fund that anyhow because it's in the report.

Ms. SMEDLEY. Can I offer—one of—our recent experience has been that all bricks and mortar projects that we get through earmarking are statutory. For the last 2 years that's been the case, and even before that the bulk of them were in bill language.

Out of the 600 million of earmarked funds that I talked about in my opening remarks, over half, $329 million, were bill language, statutory items that did, you know, did come up for a vote. Where we see the report language prevailing is in the non-bricks and mortar, the research, attaching research priorities to our programs.

Mr. WALKER. Understand—what I think I am hearing here is that if an authorization earmark comes down to you, you feel as though you can ignore that one because there's no money connected with it. But, let me continue. But if there is an appropriation earmark that comes down to you, even though they haven't put in any additional dollars, that was automatically honored. Now, I am having trouble figuring out what the difference between the two is.

Ms. SMEDLEY. Our problem is similar to the problem that EPA cited. We normally do not get an authorization bill for our civilian research programs. The only authorization that we get on an annual basis regularly is armed services for our defense programs.

Now, we do try to look at their report and compare with the appropriations report and try to work out, if there are dichotomies, try to work them out. So we do respect guidance from authorizing reports and we do try to work with both sides of the House to reach agreement.

We also—

Mr. WALKER. Well, we did get—for instance, in yours we did get—as a part of the new energy bill, we did get some authorizing language in there. In all honesty we have found if appropriators have tried to move in some cases above what was authorized, in some cases reduce what was authorized. They have tried to redirect the priorities in terms of general policy.

And from what I have seen on that, you follow the appropriators' priorities when the spending comes down, rather than referencing what the authorizing committees may have done in terms of setting policy.

I agree with you. We have got a real problem here that we're not getting an EPA R&D bill done, that we can't get the energy one done, and sporadically can't get the NASA one done. And that is—and that's a problem, and it's a problem of the way this place is organized in that over on the Senate side the appropriators and the authorizes are the same people and they decide they can do more interesting work as appropriators than they can as authorizers, and so we find it very difficult to get the policy bills through. So that is indeed a problem that you have that is somewhat of our making.

On the other hand, when we do get one done we find that the appropriations process can also ignore it and you tend to follow the appropriations process.

Mr. PESACHOWITZ. Congressman, one of the approaches that we use in this difficult situation is to try to reconcile these differences in terms of the operating plan that we put together and submit, which ultimately is approved by the authorization and appropriation committee. But the operating plan becomes the mechanism for us to try to reconcile the differences to the extent that we can.

Mr. WALKER. Let me ask you this. If you had a specific direction from this authorizing committee not to fund an appropriated earmark, would that cause you to decide not to fund that earmark? If all 55 members of this committee came to you and said we don't want that earmark funded, an earmark in our jurisdictional area, would that cause you not to fund that earmark?

Dr. BROWN. Congressman, I have with me today Mr. Frankle, our General Counsel, and I'd be glad to have him come to the table to help and respond to that question.

[Laughter].

Mr. PESACHOWITZ. EPA would wait and see what energy does.

[Laughter].

Ms. SMEDLEY. What we would try to do in such a circumstance is to go back to our Appropriations Committees and to you and say, "We have a problem. We have direction from you to do this. We have direction from our authorizing committee that objects to this. Can we try to work out a solution so that we're not at loggerheads with either one of you"

Mr. PESACHOWITZ. I think that's exactly what we would do. Hopefully, it would be resolved so that we would all be happy.

Mr. WALKER. Yes, well—and maybe we could do it in Norway.

But I think you see our kind of dilemma on it too, and I am just trying to seek some ways here that we can resolve it to both your satisfaction and ours.

I thank you, Mr. Chairman.

The CHAIRMAN. There's no implication in anything that Mr. Walker said that the agencies are at fault here. We're looking for guidance as to how we can put our own house in order, basically, and that's not your responsibility. We wish you could help us with it, but it's not your responsibility. We think we can handle it given the motivation and circumstances that we have today.

I want to express my thanks to all of you for your presence and your testimony. There are some real signs, as I said in my opening remarks, that the situation may have peaked and is moving toward better circumstances. We hope that will continue. We hope that this hearing has contributed to that outcome. Thank you very much.

The committee will be adjourned.

[Whereupon, at 12:24 p.m., the committee was recessed, to reconvene subject to the call of the Chair.]

APPENDIX

COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY
U.S. HOUSE OF REPRESENTATIVES
WASHINGTON, D.C. 20515

OPENING STATEMENT OF THE HONORABLE ROBERT S. WALKER
HEARING ON ACADEMIC EARMARKS
JUNE 16, 1993

Mr. Chairman, I want to take this opportunity to thank you publicly for the work you have done over the past year to highlight the growing practice of academic earmarking. This is an issue on which we agree: this practice is detrimental to the integrity of the federal science funding process.

Earmarking in all areas, not just research, has been a concern of mine for a long time. The back door method used by the appropriators to fund pet projects in their districts undermines the legislative and peer review processes, and contributes to the American public's disdain for the way the Congress conducts its business. I believe that we have made progress in recent years in convincing our colleagues on other authorizing committees that earmarked appropriations undermine their role. I hope that the crusade against earmarks will be even more successful this year.

I have reviewed some of the written testimony to be presented this morning, and I must say that I am a little amazed at some of the justifications given for earmarking of appropriations to certain facilities: the projects funded aren't boondoggles; they are vital to the nation's future; and they aren't taking away from scientific research because they're add-on spending. Well, even a car that's a lemon can be made to look good in a showroom, but it doesn't mean that there's a great engine under the hood. The bottom line is that most earmarked projects are funded the way they are because they wouldn't be able to withstand close scrutiny.

Again, Mr. Chairman, thank you for scheduling this series of hearings, and I look forward to working with you to develop solutions to the problem of academic pork.

HONORABLE HARRIS FAWELL

OPENING STATEMENT

COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY

HEARING
ON
ACADEMIC EARMARKS

June 16, 1993

I am pleased to join my fellow "Porkbuster," Chairman Brown, in this, the first of a series of hearings on academic earmarks. I want to congratulate him for convening these hearings, and to commend him and the Committee's Ranking Republican Member, Mr. Walker, for the strong leadership they have demonstrated on this issue.

Since 1980, the total value of earmarked projects has risen 70-fold. Last September, the Congressional Research Service (CRS) reported that nearly $2.5 billion was earmarked for 1,470 research projects at 234 academic institutions during the 13-year period, Fiscal Years 1980 - 1992. Approximately half of this amount was appropriated in Fiscal Years 1991 and 1992, and FY 1992 set a record to date — $708 million for 499 earmarks. This disturbing trend continued unabated in Fiscal Year 1993, and President Clinton's plan to redirect as much as $30 billion in Federal research money from military to civilian projects over the next four years is likely to continue the scramble for noncompetitive grants in our $75 billion R&D budget.

Supporters of earmarking argue that the merit review process favors "elite" institutions and that earmarking helps less competitive institutions to become more competitive in the quest for Federal research funds. However, the CRS report on the FY 1980 - FY 1992 earmarks refutes this argument: of 37 academic institutions that received $20 million or more in earmarks during this period, 9 improved their Federal research rank; 8 dropped in rank; one, no change; and the data for the remaining 19 were inclusive.

Another argument used for earmarking is that it eliminates so-called geographic inequities from a merit system that has produced an uneven distribution of Federal funds among States and institutions. However, the CRS found that nearly 30 percent of all earmarked dollars went to just 5 States, and more than half to just 10 States and to just 10 institutions — an obvious geographic inequity.

The world-class excellence of our nation's research system is based upon a merit or "peer" review system that ensures that scarce resources are directed to the best ideas and the best minds. As Chairman Brown has noted in other fora, pork-barrel funding and the parochial political interests from which it springs has the power to subvert and destroy this system.

Money that is diverted by Congress to fund earmarks comes out of the hide of other programs which have been peer reviewed, carefully scrutinized, and publicly debated. As a result of pork-barreling, mediocre research is funded, while high-quality science is not, and scarce Federal funds are wasted.

Last September, it appeared that the Committee had made a major breakthrough in the earmark battle. During the House's consideration of the FY 1993 Energy and Water Appropriations Bill Conference Report, we were suddenly confronted by the appearance of $94.8 million for 10 university projects — in the House-passed bill, there was no money for any of these, and in the Senate-passed bill, there was only $300,000 to study them. Chairman Brown led the fight to make these funds subject to competitive merit-review awards to academic facilities, and his amendment carried by an overwhelming margin of 250 to 104. This victory proved short-lived, however, for on October 5, these earmarks were restored in an obscure section of the FY 1993 Defense Appropriations Bill Conference Report during the waning hours of the 102nd Congress.

That act of supreme arrogance on the part of the appropriators, I believe, shocked and angered all of us. On the positive side, that action has stimulated this series of hearings, and I hope will lead to a solution which will put a stop to this corrosive and abusive practice once and for all.

TESTIMONY OF SEN. JAMES M. JEFFORDS
ON ACADEMIC EARMARKS
BEFORE THE COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY
JUNE 16, 1993

Mr. Chairman:

Thank you for the opportunity to testify before your committee today on academic earmarks. I want to commend you for your attention to this matter. It will undoubtedly continue to be an uphill fight.

As my colleague is aware, last year I offered an amendment to the VA-HUD-Independent Agencies Appropriations bill prohibiting EPA from spending money on any research center that was not competitively awarded. Unfortunately, this provision did not survive conference.

This year, when I attempted to obtain more information on academic earmarks, I was shocked to learn that my colleagues on the Appropriations Committee were actively trying to suppress information on academic earmarks. The Congressional Research Service had issued several studies of academic earmarks. When I asked for these reports, however, I was told that the Appropriations Committee had intervened to prevent further release of these reports. It seems my colleagues don't want the public to know how bad the problem is.

Regardless, I plan to continue my efforts and support the Chairman's efforts in the Senate. I hope that the Education subcommittee in the Senate will also hold hearings on academic earmarks. All universities are badly in need of financial assistance. Earmarking funds for a few universities is not the way to address this problem.

I am also concerned about the message such pork sends to the nation. The unfunded environmental mandate debate is a case in point. How can we tell our cities and towns that we have no money to help them when we funnel over a billion in research pork to projects with little merit? Conservatives argue that we should roll-back protections as their solution to the unfunded mandate problem. I argue that it is not the mandate, but the funding that is the problem. Once we've allocated our resources more intelligently, then we can look at roll-backs where needed. Let's get rid of supercolliders, star wars, and a myriad of other unnecessary projects before we tell the American people we cannot afford to protect them.

I applaud the Chairman for his efforts and look forward to working with you in this Congress.

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COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY
U.S. HOUSE OF REPRESENTATIVES
WASHINGTON, D.C. 20515

OPENING STATEMENT OF THE HONORABLE ROBERT S. WALKER (PA) HEARING ON ACADEMIC EARMARKS

SEPTEMBER 15, 1993

Mr. Chairman, I am pleased to join you this morning at this hearing on an issue which has been very important to both of us. Often, the practice of earmarking funds without appropriate congressional authorization and peer review is bemoaned by Members, the press, and the scientific community; but, I am not aware that a series of hearings such as the ones this Committee is sponsoring has been held before. These hearings are an opportunity for the Science Committee to build a written record on the growing practice of earmarking federal funds for academic projects.

I have examined both the answers submitted to the Chairman's preliminary questions, and the written testimony submitted by the witnesses, and I must say that on paper, at least, these projects look quite impressive. The statements, however, do not address several issues which I believe go directly to the heart of the debate over the wisdom of funding science projects in this manner. In all likelihood the projects described by today's witnesses are good programs and the facilities being constructed with federal funds will be used to conduct sound research. I have very serious concerns, however, about the public policy implications of continuing to fund federal scientific research in this haphazard manner, and I will be interested to hear from the panel about their reasons for seeking these earmarks.

We have, for instance, among the four rather typical cases before us today, a biomedical facility funded with Department of Energy funds, and a facility funded with EPA dollars which promises to do some environmentally-related research. We hear repeatedly that federal research and development is under funded. If this is case, then it makes little sense to reallocate scarce research dollars to construction projects simply by virtue of being located in a powerful Member's district. Up until 10 or 15 years ago this practice as it pertains to academic research was virtually unheard of. Now, it's becoming common practice to fund projects this way, regardless of its connection to the unlucky agency's mission. The Congressional Research Service report prepared for the Committee indicates that the number of academic projects grew from seven in 1980 to 499 in 1992, in my view an unhealthy trend.

As I said earlier, the universities represented here may very be doing good work, but if these projects are so meritorious, then why do their backers seem to shy away from the very process which rewards excellence? I hope the witnesses before us today will answer this question. I expect that we will hear that the peer review process simply did not recognize the worth of their proposals, and were forced to seek other sources of funding.

Chairman Brown and I have both been involved in crafting legislative solutions to the problem of academic earmarking. Other Members share our concerns; but, earmarking is an insidious practice which I admit may yet defeat our best efforts to halt it. My hope is that the academic community will see the harm that politicizing research in this way will cause, and begin to take steps to impose rigorous standards to police itself.

Again, I look forward to this morning's discussion. Thank you, Mr. Chairman.

THE UNIVERSITY OF UTAH

Arthur K. Smith
President

August 23, 1993

The Honorable George E. Brown, Jr.
Chairman, Committee on Science, Space,
and Technology
U.S. House of Representatives
Suite 2320 Rayburn House Office Building
Washington, D.C. 20515-6301

Dear Congressman Brown:

Thank you very much for your August 3 letter. I now quite understand the circumstances that led to the eleventh-hour postponement of your Committee's hearing on Academic Earmarking, Part II. I also appreciate your expression of regret regarding the inconvenience caused us at that time.

Enclosed with this letter is a revised copy of my August 3 statement for your Committee's hearing. It has been edited for appropriateness as a written, rather than an oral statement.

Finally, we are excited by the prospect of your visit to the University of Utah campus and the opportunity to show you first-hand our success in technology transfer and the commercialization of our faculty members' scientific research. We are working directly with Michael Quear to determine a mutually convenient time for your visit.

I look forward to meeting you here in Salt Lake City.

Sincerely,

Arthur K. Smith

AKS/lm
Enclosure
cc: Richard K. Koehn, Vice President
for Research

Office of the President
203 Park Building
Salt Lake City, Utah 84112
(801) 581-5701
FAX (801) 581-6892

Testimony

U.S. House of Representatives

Committee on Science, Space, and Technology

Arthur K. Smith, President
University of Utah
203 Park Building
Salt Lake City, UT 82112

August 3, 1993

Mr. Chairman, let me begin by saying that I appreciate the opportunity to testify before your Committee on this very important topic of academic earmarkings. I think the Committee is doing important work in this regard. I especially appreciate Chairman Brown's long record of distinguished commitment to and support of the nation's scientific research community. I am aware of the enthusiasm in the research community for these hearings, which I believe reflects a recognition that earmarking affects any national policy for the funding of science.

Research is a vitally important part of the mission of the University of Utah. I know the Committee appreciates that we are one of the most distinguished research universities in the nation. The most recent statistics from the National Science Foundation (1991), ranked the University of Utah 38th among more than 500 U.S. universities in total federal research expenditures. This rank represents more than $100 million of federal research sponsorship, virtually every dollar of which, I might add, was awarded as a result of the peer review process. And over the past year 1992-93, the University's new sponsored research grant and contract awards totaled more than $142 million, an increase of 12.5 percent from the previous year.

We believe that our outstanding success in competing for federal research dollars derives from our distinguished faculty, the infrastructural research support that the University is able to give that faculty, and the economic value that the Utah community is able to derive from the University's basic research activities.

I had the pleasure of reading the record of this Committee's hearing on June 16, 1993. You heard testimony that there is only a "perceived" connection between university research and economic growth, that while many believe this connection is vital to our nation's economic prosperity, in reality, the connection does not exist. Let me say emphatically to the contrary, however, that this connection is not only real and vital to the interests of the nation, but that the University of Utah has a long and distinguished record of developing commercial technologies and new companies from its research efforts. Indeed, this success is a matter of Congressional Record, which contains a reading of a New York Times cover story on our successes (copy attached). We lead the nation, or are among a very select few leading research institutions, in several measures of technology transfer per-million-dollars of research effort, including the numbers of disclosures, patents applied for, patents issued, and license agreements. The University of Utah Research Park, established more than twenty years ago, has housed more than 50 companies that were formed by our faculty. The Park currently employs more than 4,000 persons and generates some $300 million in annual sales. Our faculty and graduates have formed companies that are leaders of today's information industry--companies like WordPerfect, Evans & Sutherland, and Novell.

The connection between our research efforts and the economic growth of high technology industries is a fundamental part of the culture at the University of Utah. We take this part of our mission very seriously. We hope that other research universities will emulate our proven formula for success in technology transfer, and we hope further that this Committee appreciates that we not only have a distinguished research record, but that this record has significantly and positively contributed to the nation's economy.

Mr. Chairman, I would not and cannot defend congressional earmarking. Indeed, I, like most of my academic colleagues, fully support a competitive peer review process to ensure that the expenditure of public funds for the support of science and technology maximizes the likelihood that only the most worthy projects are funded.

Let me describe the University of Utah's approach to federal funding. Our objective is simple: It is to overlay the areas of research excellence at the University with programs or initiatives in which the federal government has announced an interest, or for which it has appropriated funds. This can range from RFPs that agencies routinely insert in the Commerce Daily to initiatives announced by the President in the State of the Union Address. In short, our faculty create research proposals in response to federal initiatives. University committees and administrative officers then review and prioritize faculty initiatives to ensure quality, compatibility with University mission, availability of facilities, cost, and so forth.

It is at this point that we may communicate with our elected federal representatives and ask for guidance on how to proceed. Our congressional delegation, for example, was able to suggest funding in the Strategic Stockpile for our research on the replacement by biopolymers of imported metals such as titanium and chromium in medical devices. We also work directly with federal agencies as we develop funding proposals. We understand that unless there are high-quality research results and a confluence of missions on the thrust of that research, our relationship with an agency will be less productive and less successful for all parties.

Another earmarked project we participate in is SCERP--The Southwest Center for Environmental Research and Policy. I am aware of the Chairman's participation in the Border Caucus. Years ago, we too were convinced that the U.S. and Mexico would attempt to strengthen trade relations, but that the disparities in environmental standards would impede our cooperation. SCERP is a consortium of U.S. universities and Mexican representatives that was funded after the last revision of the Clean Air Act to include the creation of a program to prioritize environmental assistance to Mexico. The Committee will find that it has served the national interest well in meeting this objective.

Our current project, earmarked funding of an Intermountain Network and Scientific Computation Center, recognizes a critical national need, one enunciated by both the Clinton and Bush Administrations: that is, making information available on the national computer network to extend the opportunities of educators, researchers, students, businesses, and the general citizenry. Today the national network serves primarily a community of academicians, but tomorrow it will be critical to all citizens as we rapidly become electronically connected to one another. The University of Utah hosted node number four on the ARPAnet, the precursor of NSFnet, and currently hosts a node on the NSFnet backbone. Our state network is part of a regional network, Westnet, which includes Utah, Colorado, New Mexico, Arizona, Wyoming, and Southern Idaho. The Intermountain Network and Scientific Computation Center will be critical in network maintenance and management, but it will also house established University of Utah research programs in areas of computer applications, with programs ranging from a host of medical uses of computers and supercomputers to ultrasound-based imaging technologies for the Department of Defense. Technologies in these areas have already been transferred to the General Electric Corporation, Techni-scan, Inc., and the Office of Naval Research. The research is supported by the Central Intelligence Agency, the

Department of Energy, Sun Computers, DEC, IBM, and many other federal and corporate organizations. Indeed, our faculty members whose research programs will be housed in this new facility, currently receive more than $6.5 million in federal research support. I have attached material that describes the protocols by which we work with NASA to ensure the quality of this project and to monitor its progress.

Mr. Chairman, we are committed to peer review. We share the Committee's concern that federal support of research must ensure support of the best science. Why then have we sought and received funds through congressional earmarking? I can find no better way to put the point than in the Chairman's own words of June 16: "We understand in this Committee the great backlog of unmet needs for research facilities around the country, and we have categorized that as being in the 5 to $10 billion level...." The chairman continues: "....[the Committee has] repeatedly suggested that we need a program to fund this at some reasonable level." Mr. Chairman, I could not agree more. In the absence of that highly preferred solution, we have used an available and fully legal process to satisfy a serious need, a need which we believe is not only our own, but the nation's--to utilize research in advanced technologies as an engine for economic development. The University of Utah has no readily available alternate source of funding to meet our need for state-of-the-art research facilities. The federal support we have received through academic earmarking has been, and will continue to be put to the most productive and defensible uses in support of peer reviewed, federally supported scientific research projects.

I return to an earlier point. The connection I have described between research and economic growth is both real and vital. There is hardly a government in the industrialized world that is not seeking mechanisms to enhance the flow of technological innovation from research universities to the private sector. Our own National Science Foundation has programs to this purpose, as do most states, including Utah. There is keen competition, among nations and among states, for the resources that enhance research productivity and thereby leverage economic growth. Mr. Chairman, as your job is to develop policy, strategy, and tactics to ensure the strength of this nation, so is it mine to do the same for the University of Utah and for the state of Utah. Earmarking is but one way to compete in this arena, and it is one that the Congress of the United States has made available to universities such as mine. I am obliged to use whatever legitimate means are at my disposal for this purpose. But I would also welcome the establishment by Congress and the Clinton Administration of a reasonably well funded program administered by the National Science Foundation that would support a much needed revitalization of university research facilities through peer review. I am also confident that the University of Utah would compete very well with other research universities in such a program.

I appreciate the opportunity I have had to describe my views on academic earmarking to this Committee. Thank you, Mr. Chairman.

Congress of the United States
House of Representatives
Committee on Appropriations
Washington, DC 20515-6015

September 14, 1993

Mr. Steven M. Sliwa
President
Embry-Riddle Aeronautical University
600 S. Clyde Morris Blvd.
Daytona Beach, FL 32114-3900

Dear Mr. Sliwa:

Thank you for your July 14, 1993 letter regarding the FAA's airway science program. I appreciate your views, and I wanted to take the opportunity to comment on some of them.

It was very clear from the last election that the American people expect Congress to change the old ways of doing business. I believe it is imperative that, in order to restore the faith of the American people in their elected representatives, the Congress shows it can provide greater scrutiny over how taxpayer dollars are spent and make spending decisions based on sound program and budget analysis and not solely on political clout.

While the airway science program may have some worthwhile individual projects, it is troubling to me that the program as a whole lacks the support of the Department of Transportation, the Federal Aviation Administration, and the DOT Office of the Inspector General. Contrary to your letter, I did not "lose confidence" in the program based on recommendations in the IG's May 19, 1993 report. I have had concerns about this program for several years, particularly regarding the use of funds for facility construction. However, the IG's findings were significant: approximately $104 million has been appropriated to date for the airway

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science program, of which 77 percent was earmarked by the Congress for specific educational institutions. According to both the FAA and the IG, the agency has no need for graduates of the program. Much of the program funding remains unobligated, some of it earmarked for institutions *which do not even have airway science programs*. Some of the funding was earmarked for construction projects which have little or no bearing on the FAA's mission. With few exceptions, the FAA has not requested funds for this program.

Furthermore, the program has not received support from the Congressional authorization committees. The Congressional budget process assumes that federal programs will be authorized by the Congress before they are funded. Legislative committees, such as the House Public Works and Transportation Committee and the House Science, Space and Technology Committee, are expected to provide guidance to the appropriations process by authorizing such programs based on a substantive review of programmatic need. To my knowledge, the committees of jurisdiction have never recommended an authorization for the airway science program. They have only been authorized in appropriations acts at the time of appropriation, which is not the way the process should work. The program should be reviewed by, and authorized by, the appropriate Congressional committees if further funding is to be considered.

The airway science program has historically been financed by the Airport and Airway Trust Fund out of the FAA's Facilities and Equipment (F&E) account. According to the Airport and Airway Improvement Act of 1982, F&E funds are to be used "for the purposes of acquiring, establishing, and improving air navigation facilities". It is difficult to see how the airway science program meets this test, especially if its graduates are not being hired in a significant way by the FAA. While other federal agencies may have established broader goals for their university programs as your letter suggests, these other agencies are not covered by the same statutory guidance as the FAA. It seems unfair to me for air travelers paying into the Airport and Airway Trust Fund to see those funds diverted to purposes not directly contributing to the mission of the FAA.

In conclusion, the airway science program has been funded for many years, yet has not been able to win the support of the Department of Transportation, the FAA, the Inspector General, or the Congressional authorization committees with jurisdiction over aviation. It is now being recommended for elimination in the National Performance Review. Absent such support, and considering the need to reduce federal spending while subjecting programs to rigorous benefit-cost analyses, I continue to believe that the airway science program should not receive federal appropriations.

I appreciate your taking the time to write me on this matter.

Sincerely,

Bob Carr
Chairman
Subcommittee on Transportation
and Related Agencies Appropriations

AlliedSignal

Allied-Signal Inc.
P.O. Box 1057
Morristown, NJ 07962-1057

September 14, 1993

Via Facsimile - 202-225-8280
Honorable George E. Brown
U.S. House of Representatives
Committee on Science, Space and Technology
Suite 2320 - Rayburn House Office Building
Washington, DC 20515 - 6301

Dear Chairman Brown:

RE: September 15 Hearing

This letter is to communicate our continued strong endorsement of the Tufts University Environmental Program and the Center for Environmental Management, which make a very great contribution, not only to the University but to the public, in terms of environmental education and raising a responsible awareness as to environmental issues.

We have participated and been especially supportive of four main programs in the Tufts environmental effort:

1. The Tufts Corporate Affiliates Program gives industry the opportunity to come together with Tufts' administrators and faculty to determine what supportive role industry can play in the environmental education process and what projects can be carried out to the mutual benefit of both. The multi-national company global standards project which Tufts carried out under the Corporate Affiliates support several years ago is an example of a strong contribution in this area.

2. The Tufts Environmental Literacy Institute (TELI) has been a landmark program, and a Presidential Award winner. AlliedSignal is proud to have been the original supporter of the program with Tufts, as it has raised the environmental content of education curriculum not only at Tufts but in other Universities in the U.S. and abroad.

3. The Tufts Environmental Management Institute courses are of great use to the practitioners. I was a participant in the teaching of one of these extension courses a few years ago, in international environmental management. I found the interaction with the students healthy and productive.

4. The Talloires Institute programs, in which a number of AlliedSignal people have participated over the years, provide a forum for sharing and understanding of concerns and uncertainties relative to the environment with governmental,

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September 14, 1993
Honorable George E. Brown
September 15 Hearing
Page Two

industry and public advocacy groups. The Talloires conferences have in fact led to much of our current understanding of global environmental standards and practices.

These Tufts environmental programs are worthy of continued support and enthusiastic participation.

Very truly yours,

Jonathan Plaut, Director
Environmental Quality

c: David Gute - Tufts
Edward W. Callahan - {
Kenneth W. Cole - {[illegible]

c:231

Bristol-Myers Squibb Company
345 Park Avenue New York, NY 10154-0037 212 546-5615

Thomas M. Hellman, Ph.D
Vice President
Environmental Affairs
Occupational Health & Safety

September 14, 1993

George E. Brown, Jr.
Chairman
U.S. House of Representatives
Committee on Science, Space, and Technology
Suite 2320, Rayburn House Office Building
Washington, D.C. 20515-8301

Dear Mr. Chairman:

I am writing to you as a charter member of the Tufts University Center for Environmental Management Environmental Affiliate Program. Bristol-Myers Squibb has provided, and continues to provide, both financial and technical support to the CEM. The Center, in my view, represents a productive partnership between Academia, Government Agencies and Industry in identifying, supporting research, policy development, technology development, and training in key environmental areas. Since 1984, CEM's multi-disciplinary programs have addressed pollution prevention, corporate environmental management, risk communication, environmental monitoring and the health and ecological effects of hazardous substances in the environment.

I believe there are a number of important advantages of collaboration between research institutions and the private sector. It helps provide a practical focus to research investments and an outlet for the use of research results. I hope you and your staff share these views after you have had an opportunity to review the Tufts CEM programs.

Very truly yours,

Thomas Hellman

Thomas M. Hellman

TMH:rlg

TUFTS UNIVERSITY

Center for Environmental Management

October 5, 1993

Honorable George E. Brown
U.S. House of Representatives
Committee on Science, Space, and Technology
Suite 2320, Rayburn House Office Building
Washington, D.C. 20515-6301

Dear Chairman Brown:

During the September 15, 1993 hearing about academic earmarking held by the Committee on Science, Space and Technology, Representative Becerra requested that Tufts determine to the extent possible whether or not the university had any contact with EPA prior to the initial planning grant that it received in October, 1983 to establish the Center for Environmental Management.

We do not have any evidence of contact with EPA prior to the initial planning grant received in October, 1983. However, the planning grant itself initiated an extensive process that involved EPA on multiple levels in laying out our mission and approach. That relationship, as I pointed out during the hearing, has been maintained and enhanced to ensure CEM's relevance to EPA's mission and priorities.

Again, thank you for the opportunity to testify before your committee. Please feel free to contact me if you have any further questions.

Sincerely,

David M. Gute

David M. Gute, Ph.D., M.P.H.
Interim Director and Assistant
Professor of Civil and
Environmental Engineering

cc: M. Bernstein

Curtis Hall
474 Boston Avenue
Medford, Massachusetts 02155
617/627-3486 General Information
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CAROLYN C. GREENFELD
Chief Clerk
DAVID D. CLEMENT
Republican Chief of Staff

July 21, 1993

Dr. Arthur K. Smith, President
The University of Utah
Salt Lake City, UT 84112

Dear Dr. Smith:

As a part of its ongoing review of academic earmarks, the Committee on Science, Space, and Technology will hold a hearing on July 28, 1993 entitled "Academic Earmarks, Part II" beginning at 9:30 a.m. in 2318 Rayburn House Office Building. In order to assist in this review, we request that you or your designee appear before the Committee and present testimony on this subject. We are specifically interested in learning more about the InterMountain Network and Scientific Computation Center. You have already provided us with some information on this project in response to our February 9, 1993 letter to you.

We request that you address in your statement, and be prepared to answer questions about, the following and other related issues:

1. Why your University initially sought earmarked funds for this project.
2. The benefits of the project to your university's educational and research mission, as well as any related benefits such as economic development and/or technological spin-offs.
3. The protocol you have developed with the National Aeronautics and Space Administration (NASA) to monitor progress and ensure the quality of earmarked projects.

We would request that you limit your oral presentation to five minutes in order to allow Members of the Committee sufficient time to question you or your designee and the other witnesses. A copy of your complete written statement will be included in the record.

In order that the Members and staff have adequate time to review your testimony before the hearing, we request that you send 200 copies of your written statement, together with any supporting materials (such as copies of viewgraphs) and 60 copies of a short biographical sketch by 12:00 noon on Monday, July 26, 1993 to:

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Ms. Brenda Ali
Committee on Science, Space, & Technology
2320 Rayburn House Office Building
Washington, D.C. 20515

Further information regarding rules governing Committee hearing procedures is attached. Any questions regarding the hearing may be directed to Michael Quear (202) 225-6917, or FAX: (202) 225-8280.

Your assistance to the Committee is greatly appreciated.

Sincerely,

George E Brown Jr.

GEORGE E. BROWN, JR.
Chairman

GEB:cf
Attachment

GEORGE E. BROWN, Jr., California, Chairman

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CAROLYN C. GREENFELD
Chief Clerk
DAVID D. CLEMENT
Republican Chief of Staff

July 21, 1993

Dr. Peter O. Kohler, President
Oregon Health Sciences University
Portland, OR 97201-3098

Dear Dr. Kohler:

As a part of its ongoing review of academic earmarks, the Committee on Science, Space, and Technology will hold a hearing on July 28, 1993 entitled "Academic Earmarks, Part II" beginning at 9:30 a.m. in 2318 Rayburn House Office Building. In order to assist in this review, we request that you or your designee appear before the Committee and present testimony on this subject. We are specifically interested in learning more about the Ambulatory Research and Education Building project. You have already provided us with some information on this project in response to our February 9, 1993 letter to you.

We request that you address in your statement, and be prepared to answer questions about, the following and other related issues:

1. Why your University initially sought earmarked funds for this project.
2. The benefits of the project to your university's educational and research mission, as well as any related benefits such as economic development and/or technological spin-offs.
3. The protocol you have developed with the Department of Energy (DOE) to monitor progress and ensure the quality of earmarked projects.

We would request that you limit your oral presentation to five minutes in order to allow Members of the Committee sufficient time to question you or your designee and the other witnesses. A copy of your complete written statement will be included in the record.

In order that the Members and staff have adequate time to review your testimony before the hearing, we request that you send 200 copies of your written statement, together with any supporting materials (such as copies of viewgraphs) and 60 copies of a short biographical sketch by 12:00 noon on Monday, July 26, 1993 to:

Dr. Peter O. Kohler
July 21, 1993
Page two

Ms. Brenda Ali
Committee on Science, Space, & Technology
2320 Rayburn House Office Building
Washington, D.C. 20515

Further information regarding rules governing Committee hearing procedures is attached. Any questions regarding the hearing may be directed to Michael Quear (202) 225-6917, or FAX: (202) 225-8280.

Your assistance to the Committee is greatly appreciated.

Sincerely,

George E Brown Jr.

GEORGE E. BROWN, JR.
Chairman

GEB:cf
Attachment

U.S. HOUSE OF REPRESENTATIVES

COMMITTEE ON SCIENCE, SPACE,
AND TECHNOLOGY

SUITE 2320 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-6301
(202) 225-6371

July 21, 1993

Dr. Charles McCallum, President
The University of Alabama at Birmingham
Birmingham, AL 35294-2010

Dear Dr. McCallum:

As a part of its ongoing review of academic earmarks, the Committee on Science, Space, and Technology will hold a hearing on July 28, 1993 entitled "Academic Earmarks, Part II" beginning at 9:30 a.m. in 2318 Rayburn House Office Building. In order to assist in this review, we request that you or your designee appear before the Committee and present testimony on this subject. We are specifically interested in learning more about the Biomedical Research Building project. You have already provided us with some information on this project in response to our February 9, 1993 letter to you.

We request that you address in your statement, and be prepared to answer questions about, the following and other related issues:

1. Why your University initially sought earmarked funds for this project.

2. The benefits of the project to your university's educational and research mission, as well as any related benefits such as economic development and/or technological spin-offs.

3. The protocol you have developed with the Department of Energy (DOE) to monitor progress and ensure the quality of earmarked projects.

We would request that you limit your oral presentation to five minutes in order to allow Members of the Committee sufficient time to question you or your designee and the other witnesses. A copy of your complete written statement will be included in the record.

In order that the Members and staff have adequate time to review your testimony before the hearing, we request that you send 200 copies of your written statement, together with any supporting materials (such as copies of viewgraphs) and 60 copies of a short biographical sketch by 12:00 noon on Monday, July 26, 1993 to:

BEST COPY AVAILABLE

Ms. Brenda Ali
Committee on Science, Space, & Technology
2320 Rayburn House Office Building
Washington, D.C. 20515

Further information regarding rules governing Committee hearing procedures is attached. Any questions regarding the hearing may be directed to Michael Quear (202) 225-6917, or FAX: (202) 225-8280.

Your assistance to the Committee is greatly appreciated.

Sincerely,

George E Brown Jr.

GEORGE E. BROWN, JR.
Chairman

GEB:cf
Attachment

U.S. HOUSE OF REPRESENTATIVES

COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY

SUITE 2320 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-6301
(202) 225-6371

July 26, 1993

Dr. Charles McCallum, President
The University of Alabama at Birmingham
Birmingham, AL 35294-2010

Dear Dr. McCallum:

I am writing with regard to the Committee's hearing on Academic Earmarks, Part II previously scheduled for July 28. University witnesses have requested additional time in order to prepare for this hearing. Therefore, we have postponed the hearing to begin at 10:00 a.m., in room 2318 of the Rayburn House Office Building on August 3, 1993.

If you have any questions, please contact Michael Quear (202) 225-6917 or Dan Pearson (202) 225-4494 of the Committee staff.

Sincerely,

George E Brown Jr.

GEORGE E. BROWN, JR.
Chairman

GEB:cf

U.S. HOUSE OF REPRESENTATIVES

COMMITTEE ON SCIENCE, SPACE,
AND TECHNOLOGY

SUITE 2320 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-6301
(202) 225-6371

July 26, 1993

The Honorable William H. Natcher
Chairman, Committee on Appropriations
U.S. House of Representatives
Washington, D.C. 20515-6015

Dear Mr. Chairman:

As part of its ongoing review of academic earmarks, my Committee will hold a hearing on August 3, 1993 entitled "Academic Earmarks (Part III)" beginning at 10:00 a.m. in 2318 Rayburn House Office Building. Because of your interest in this subject, I would like to invite you or any of the Members of the Committee on Appropriations to attend this hearing.

This hearing will focus on university projects and programs. Issues to be raised with university witnesses will include reasons for seeking earmarked funds, benefits of projects and programs to the university's research and educational missions, and the protocol developed with the federal agency to monitor progress and ensure the quality of earmarked projects. Federal agency representatives will address such issues as their agencies' positions on academic earmarks, the manner in which their agencies allocate monies to earmarked projects, and their agencies' efforts to monitor project progress and quality.

Invited witnesses included representatives of the University of Utah, Tufts University, University of Alabama, the Oregon Health Sciences University, EPA, DoE, and NASA.

If you have any questions concerning this hearing please feel free to contact me or have your staff contact Michael Quear (202) 225-6917.

Sincerely,

George E. Brown Jr.

GEORGE E. BROWN, JR.
Chairman

cc: The Honorable Tom Bevill
The Honorable Louis Stokes

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U.S. HOUSE OF REPRESENTATIVES
COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY
SUITE 2320 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-6301
(202) 225-6371

July 27, 1993

Honorable Tom Bevill
Chairman, Subcommittee on Energy and Water Development
Committee on Appropriations
U.S. House of Representatives
WAshington, DC 20515-6015

Dear Tom ~~Mr. Chairman~~:

I understand that you may be concerned about the hearing on Academic Earmarks scheduled by the Committee on Science, Space and Technology for August 3, 1993, at which the University of Alabama has been invited to testify.

Please accept my assurance that this will be a friendly, non-adversarial hearing with the only purpose of getting information which might enable our committee to authorize programs such as have been funded by earmarks on appropriation bills.

I understand your personal interest in the University of Alabama. It would be an honor for our committee if you would be willing to introduce the Alabama witness, and to sit with the committee during the hearing and participate in the discussion.

Tom, our only interest is in helping the House to function better as an institution. I know you share that goal.

I have written to Chairman Natcher about this hearing and attach a copy of my letter with this.

Sincerely,

George

George E. Brown, Jr.
Chairman

U.S. HOUSE OF REPRESENTATIVES

COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY

SUITE 2320 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-6301
(202) 225-6371

July 29, 1993

Dr. Charles McCallum, President
The University of Alabama at Birmingham
Birmingham, AL 35294-2010

Dear Dr. McCallum:

After discussion with Congressman Tom Bevill concerning the hardship your appearance in Washington on August 3, 1993 would create for the University of Alabama at Birmingham, I am willing to permit you to submit written answers to questions for inclusion in the Record of the Hearing. I will send you a list of questions by August 1, 1993. The Hearing Record will be kept open until August 17, 1993 for your response.

If your response would be insufficient to provide a full understanding of the issues before the Committee regarding Congressional earmarks for University research facilities, we would invite you to a further appearance before the Committee at a mutually convenient time.

As I have explained to Congressman Bevill in the enclosed letter this is not intended to be an adversarial or harassing hearing. We acknowledge the value of the research work the University accomplishes and we seek to determine how projects such as yours can be authorized by Congress in the normal way, by action of an authorizing Committee prior to the appropriation of funds. We believe that such a course would provide greater stability to your activities.

We will be grateful for your cooperation.

Sincerely,

GEORGE E. BROWN, JR.
Chairman

Enclosures

cc: Honorable Tom Bevill

UAB THE UNIVERSITY OF
ALABAMA AT BIRMINGHAM

Office of the President

July 30, 1993

The Honorable George E. Brown, Jr.
Chairman
Committee on Science, Space, and Technology
Suite 2320 Rayburn House Office Building
Washington, DC 20515-6301

Dear Mr. Chairman:

This is to acknowledge your letter of July 29, 1993. I appreciate very much your allowing us to respond in writing to whatever additional questions that your Committee may have regarding our Biomedical Research facility. In my view, this arrangement is best suited for our present circumstances and should enable us to reply most effectively to your questions.

Please be assured that we will make every effort to cooperate fully with your Committee's inquiry.

Sincerely,

Charles A. McCallum, D.M.D., M.D.
President

CAMcM/bap
cc: The Honorable Tom Bevill

The University of Alabama at Birmingham
107 Mortimer Jordan Hall • 1825 University Boulevard
Birmingham, Alabama 35294-2010 • (205) 934-4636 • FAX (205) 934-3610

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MICHAEL RODEMEYER
Chief Counsel
CAROLYN C. GREENFELD
Chief Clerk
DAVID D. CLEMENT
Republican Chief of Staff

July 30, 1993

The Honorable Karen Shepherd
U.S. House of Representatives
Washington, D.C. 20515

Dear Ms. Shepherd:

Following our conversation about the hearing on academic earmarks scheduled by the Committee on Science, Space, and Technology, I want to assure you that this will be a friendly, non-adversarial hearing. The purpose of this hearing is to obtain information which might allow our Committee to authorize programs which have previously been funded by earmarks on appropriations bills.

This hearing will focus on university projects and programs. Issues we will be addressing with university witnesses will include reasons for seeking earmarked funds, the benefits of the projects and programs to the university's research and educational missions, and the protocol developed with the federal agency to ensure project progress and quality.

Because of your personal interest in the University of Utah, the Committee would be honored if you would be willing to introduce Dr. Smith, and to sit with the Committee during the hearing and participate in the discussion.

Our only interest is in helping the House function better as an institution – a goal which I know you share.

Sincerely,

George

GEORGE E. BROWN, JR.
Chairman

cc: Dr. Arthur Smith

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U.S. HOUSE OF REPRESENTATIVES

COMMITTEE ON SCIENCE, SPACE,
AND TECHNOLOGY

SUITE 2320 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-6301
(202) 225-6371

[illegible]

July 30, 1993

The Honorable Mark O. Hatfield
United States Senate
Washington, D.C. 20510-3701

Dear Senator Hatfield:

Regarding your letter of July 28, 1993, please accept my assurances that the purpose of this hearing is to obtain information which might allow for authorization of programs which have previously been funded via direct appropriations. As such, this will be a friendly, non-adversarial hearing.

The hearing will focus on university projects and programs. Issues we will be raising with university witnesses will include reasons for seeking earmarked funds, the benefits of the projects and programs to the university's research and educational mission, and the protocol developed with the federal agency to monitor progress and ensure the quality of earmarked projects.

I understand your personal interest in the Oregon Health Sciences University. Therefore, I would like to invite you or a Member of the Oregon delegation to introduce Dr. Kohler and sit with the Committee during the hearing, as well as participate in the discussion.

I have also written to Chairman Bevill concerning this hearing (see enclosure).

Please feel free to contact me if you have any additional questions or concerns about this hearing.

Sincerely,

George

GEORGE E. BROWN, JR.
Chairman

Enclosure
cc: The Honorable Elizabeth Furse
Dr. Peter O. Kohler

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U.S. HOUSE OF REPRESENTATIVES
COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY
SUITE 2320 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-6301
(202) 225-6371

August 9, 1993

Dr. Charles McCallum, President
The University of Alabama at Birmingham
Birmingham, AL 35294-2010

Dear Dr. McCallum:

Due to the untimely death of Congressman Paul Henry, a long-time Member of this Committee, we postponed the August 2, 1993 "Academic Earmarks, Part II" hearing to allow Members to attend Congressman Henry's funeral.

The Committee has re-scheduled the hearing for September 15, 1993 beginning at 9:30 a.m. in 2318 Rayburn House Office Building. We request that you or your designee appear before the Committee and present testimony on the subject of Academic Earmarking. My July 21, 1993 letter to you (see attached) details the focus and scope of the hearing.

As I intimated in my earlier correspondence, we would also like your response to some additional questions prior to the hearing (see attached). We would like your written response to these questions by September 3, 1993.

I want to thank you for your assurances to cooperate fully with the Committee's review of academic earmarks. I look forward to meeting you at our hearing.

Sincerely,

George E Brown Jr.

GEORGE E. BROWN, JR.
Chairman

Attachment
GEB:cf

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Columbia University
in the City of New York
NEW YORK, N.Y. 10027
PRESIDENT'S ROOM

RECEIVED
EP - 7 1993
Committee on Science, Space,
and Technology

September 2, 1993

Dear Chairman Brown:

I have received your letter of August 16, 1993, to Michael Sovern regarding the September 15 hearing of your committee, on the topic of academic earmarks. On June 30, 1993 Mr. Sovern retired as president of Columbia. I am responding to your letter because I succeeded him on July 1.

As September begins my initial semester in this role, I am unable to come to Washington on September 15 to participate in your hearing; and because the questions you plan to raise are fundamental to this or to any other research institution, I prefer not to send a representative in my stead.

I thank you for this opportunity and regret that I cannot respond affirmatively at this time.

Sincerely,

George Rupp

Mr. George E. Brown, Jr.
Chairman
United States House of Representatives
Committee on Science, Space, and Technology
Suite 2320 Rayburn House Office Building
Washington, DC 20515-6301

Columbia University in the City of New York | *New York, N.Y. 10027*

VICE PRESIDENT FOR GOVERNMENT RELATIONS
AND COMMUNITY AFFAIRS

301 Low Library

VIA FAX
September 10, 1993
6:00 P.M.

Dr. Robert E. Palmer
Chief of Staff
Committee on Science, Space
and Technology
2320 Rayburn House Office Building
Washington, D.C. 20515-6301

RECEIVED
SEP 15 1993
Committee on Science, Space
and Technology

Dear Dr. Palmer:

In response to your request in our telephone conversation of Wednesday evening, Columbia will send a representative to testify at the September 15 hearing of the Committee on Science, Space and Technology.

At per Chairman Brown's letter of August 16 requesting our appearance, we will join your hearing on Wednesday, September 15 at 9:30 a.m. in Room 2318 Rayburn H.O.B. We will bring ample copies of our testimony at that time.

Our representative will be Dr. William A. Polf, Deputy Vice President for Health Sciences. A brief biographical sketch is enclosed. Please confirm these arrangements at your earliest convenience.

Sincerely,

Gregory Fusco

Gregory Fusco
Vice President

Enclosure

Dr. William A. Polf

Dr. William A. Polf is Deputy Vice President for Health Sciences at Columbia University. He is the senior University official responsible for the development of the Audubon Research Park, a major biomedical research complex adjacent to the Columbia Presbyterian Medical Center in the Washington Heights district of Manhattan.

TUFTS UNIVERSITY

Center for Environmental Management

October 5, 1993

Honorable George E. Brown
U.S. House of Representatives
Committee on Science, Space, and Technology
Suite 2320, Rayburn House Office Building
Washington, D.C. 20515-6301

Dear Chairman Brown:

During the September 15, 1993 hearing about academic earmarking held by the Committee on Science, Space and Technology, Representative Becerra requested that Tufts determine to the extent possible whether or not the university had any contact with EPA prior to the initial planning grant that it received in October, 1983 to establish the Center for Environmental Management.

We do not have any evidence of contact with EPA prior to the initial planning grant received in October, 1983. However, the planning grant itself initiated an extensive process that involved EPA on multiple levels in laying out our mission and approach. That relationship, as I pointed out during the hearing, has been maintained and enhanced to ensure CEM's relevance to EPA's mission and priorities.

Again, thank you for the opportunity to testify before your committee. Please feel free to contact me if you have any further questions.

Sincerely,

David M. Gute

David M. Gute, Ph.D., M.P.H.
Interim Director and Assistant
Professor of Civil and
Environmental Engineering

cc: M. Bernstein

Curtis Hall
474 Boston Avenue
Medford, Massachusetts 02155
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617/627-3452 Office of Environmental Programs
617/627-3084 FAX

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